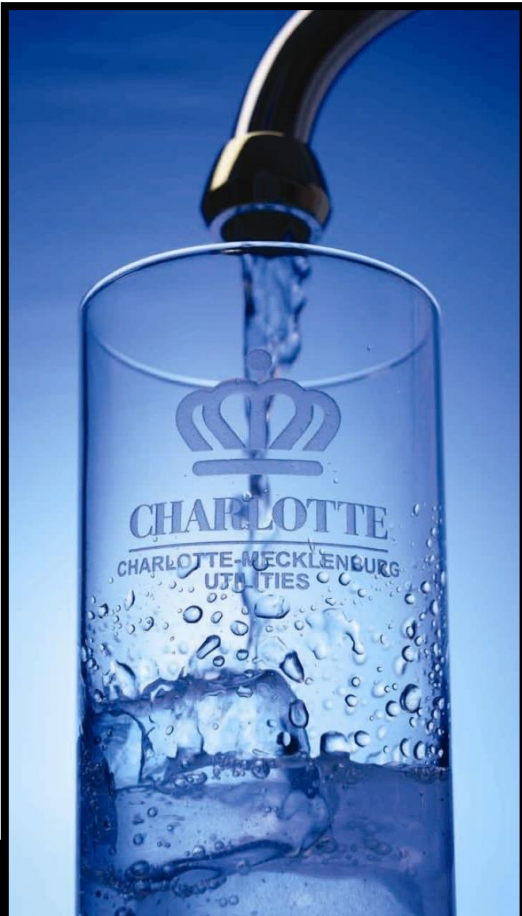


STRATEGIC OPERATING PLAN FY2015



CHARLOTTE-MECKLENBURG UTILITY DEPARTMENT

Clean Water for a Healthy Community

Report prepared July 2014



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Executive Summary

INTRODUCTION

Charlotte-Mecklenburg Utility Department (CMUD) was established in 1972 when the City of Charlotte and Mecklenburg County combined its water and sewer systems. Today CMUD is the largest public utility in the Carolinas, serving over 260,000 water service accounts and maintaining over 8,200 miles of pipe.

CMUD's core business is to provide safe drinking water and safely transport and treat wastewater for the Charlotte-Mecklenburg community. CMUD is organized into functional areas that contribute to accomplishing the organization's objectives. A citizen Advisory Committee comprised of seven members representing neighborhoods, civil engineers, water-sewer contractors, financial experts, real estate developers, and Mecklenburg towns is charged with reviewing:

Community Investment Plans (formerly known as Capital Improvement Programs), proposed changes and implementation of the water and sewer rate methodology, and proposed changes in the policy for extending water and sewer service.



CMUD's plans for FY2014 TO 2015 contain new actions designed to further align our priorities with our vision and mission and the goals and objectives of the City.

VISION AND MISSION

Vision

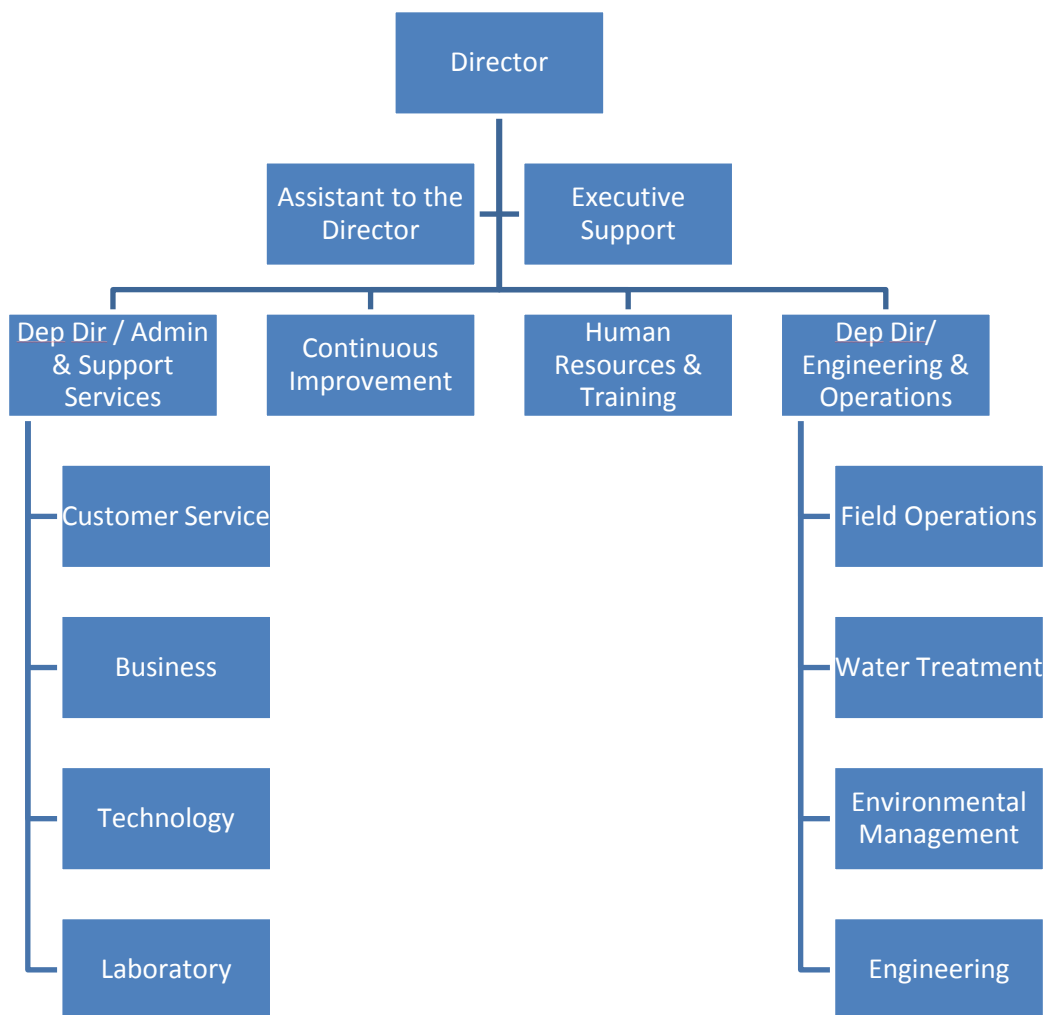
We will be the recognized leader in the region, state, and nation by contributing to the health, safety, and economic well-being of our customers; in protecting and conserving our natural resource and environment; and in providing for the growth and development of our employees.

Mission

We are committed to customer satisfaction and confidence by providing responsive services, reasonable rates, system capacity, and effective communication. We provide safe and sufficient drinking water by protecting, treating, and distributing drinking water. We protect the environment by collecting and treating wastewater, reusing residuals beneficially, and regulating system discharges. We accomplish our mission through well-trained employees dedicated to customer service.

ORGANIZATION CHART

CMUD's core business is providing safe drinking water and safely transporting and treating wastewater for the Charlotte-Mecklenburg community. CMUD is organized into key functions that contribute to carrying out the organization's objectives represented by the following chart:



NEEDS AND CHALLENGES

- **Regional Environmental and Water Supply Management** – Although the South Carolina vs. North Carolina Water Rights law suit was settled at the end of calendar year 2010, the management of our **regional water supply** will continue to be a key issue, particularly as unusual bouts of extended drought or extreme wet weather occur. Participation in groups such as the Catawba-Wateree Water Management Group and responding to the state's Water Allocation Study recommendations will be among the necessary actions undertaken by CMUD. Continual planning and development of regional partnerships are needed to form the foundation to meet future wastewater treatment needs. In 2013, CMUD helped

to lead and co-sponsored the publication of the *Defining and Enhancing the Safe Yield of a Multi-Use, Multi-Reservoir Water Supply* report in conjunction with the Water Research Foundation, with assistance from the Catawba-Wateree Water Management Group. This tailored collaboration project provides best practice guidance, integrating forecasted climate change, and identifies methods to potentially improve safe yield of the water supply. In FY2014, the Catawba-Wateree Water Management Group- completed the Basin-wide Water Supply Plan. A presentation on the plan was made to City Council. Additional presentations to other stakeholders are planned for the first half of FY2015.

- **Financial Challenges:**

- As of June 30, 2014, CMUD operations have seen some cost savings due to effective management of items such as power use. Line items are given a basic review each month. All line items are carefully reviewed in detail with divisional budget representatives in annual December/January meetings as part of the departmental business planning process. For the overall CMUD budget, operational expenses met expectations. Although CMUD staff is working diligently to fill all vacancies, some savings will be a result of position vacancies still open. As of June 30th, 52 vacancies remain.
- For FY14 year-end, CMUD total revenues are projected to be \$1.79 million under expectations, largely due to shortages in volumetric revenue associated with water consumption. When reviewing consumption on a more detailed level, Tier 1 and 2 are generally within projected expectations, but the higher consumption tiers 3 and 4 are well below the projection. The enactment of the availability fee has had a positive balancing effect on revenue stability, providing less reliance on the volumetric revenue. In addition to the largely volumetric revenue line items above, revenue collected from fixed and availability fees (over \$44 million) for example, were received as projected. This is based on the fact that fixed and availability fee revenues are performing slightly ahead of projections. Revenues and expenditures are monitored monthly and additional budget management measures could be implemented should the revenue gap persist.
- The Utility rate structure changed by Council in 2010 is designed around a tiered pricing model that encourages conservation. As customers have changed usage behavior and have become more efficient, the amount of water used per residential customer has decreased. While these decreases are good for the region's long-term water supply, in the short-term they pose potential revenue concerns. For FY 2015, CMUD is researching the potential to implement minor modifications to the rate model that could help decrease these revenue impacts by lessening reliance on Tier 4. It is likely that a full rate study will be needed at a future date to fully address the changing consumption patterns of customers.

Financial statistics of note include:

- CMUD Operating Budget for FY14 was \$347,718,850 (includes debt service and PAYGO)

- The capital improvement budgets are:
 - (1) Water CIP FY14 \$38,075,000; FY15 \$33,843,400
 - (2) Wastewater CIP FY14 \$68,280,400; FY15 \$73,045,400
- There were 761.5 funded positions in FY14 and there are 799.75 funded FY15 Positions. The resource needs addressed by new positions are detailed in the performance narrative below.
- CMUD final total FY14 revenues met expectations (revenues for FY14 were budgeted at \$318,015,381).
 - Details by revenue categories are:

○ Volumetric revenues	\$9 million under
○ Capacity and connection revenues	\$7 million over
- Debt ratios as of 6-30-2014, the latest numbers available (unaudited) are:

○ Debt Service Coverage	1.88
○ Fund Balance to annual budget	43%
○ Debt service percent to total revenue	46%
○ PAYGO (of capital funding)	47%

Based on our FY 2013 Audited Financial Statements, our fund balance is 102% of our operating expenses for FY 2014. Our goal is 100%.

- **Performance Challenges:**

- For Year End FY14, covering performance from July 1, 2013 to June 30, 2014, CMUD continues to ensure public health, safety, and the environment by meeting the compliance goals for water and wastewater treatment.
- CMUD experienced an unusual negative event in February 2014. PCB waste material was illegally discharged to the sanitary sewer system. This illegal dumping caused CMUD to activate its Emergency Operations Center and to have an all hands on deck response. CMUD is still addressing this issue which has ultimately resulted in the need to dispose of biosolids in more costly ways.
- On a normal operations level, CMUD FY14 final performance metrics indicate that the field operation pipe system for water distribution and wastewater collection will be approximately 8400 miles. Collection system integrity has been maintained with sanitary sewer overflows per 100 miles of pipe down to a currently projected low of 5.9. CMUD makes every effort to conserve water by repairing distribution system water leaks in a timely manner. Current results indicate 100% repair completion of all leaks within 8 calendar weeks.
- Additionally, an improved preliminary non-revenue water audit has been performed and is currently under review. To offer more services in the future, a Request for Proposals for the Water Meter Services Upgrade Program has been issued as of July 2014, with responses expected by September 2014.
- Further, CMUD continues with the implementation and maintenance of best practice standards such as ISO, NELAP, and the Partnership for Safe Water, along with the

promotion of employee and leadership development by implementing procedures for a streamlined vacancy filling process and offering internal CEU and PDH opportunities.

- CMUD performance challenges in FY15 tie back to the long range strategic operating plan objectives of Customer Satisfaction, Infrastructure Stability, Community Sustainability/Economic Development, and Product Quality/Regulatory Compliance. Based on the needs and challenges identified and the long range strategic position of the utility, CMUD is adding new staff for service level changes in several areas.
- **Business and Service Specifics:**
- **Technology solutions** for maintaining, enhancing, and expanding efficient use in CMUD operations, particularly in field applications are underway. Specific areas of resource concerns include sustaining and growing the Work and Asset Management (WAM) implementation, Laboratory Information Management System (LIMS) data integration, System Protection technical support, Meter Management systems, and general reporting/data management. These tools are invaluable for providing consistent, responsive, transparent customer service and for responding to regulatory requirements. Contractors have been used for the initial large scale implementation, but ongoing long term customization, maintenance and support will now be required and can best be provided internally. As customers' expectations around immediate data availability increases and regulatory demands change, CMUD needs to greatly improve information delivery to field staff as they interact with external customers while at various locations in the field. **Staffing will be added in FY15.**

INFRASTRUCTURE STABILITY

Reduce risk management exposure

Service Level Change	Number of Positions	Focus
IT resource for expanded work asset management application, servers and data acquisition systems	1	As the work asset management (WAM) program enters plants additional IT support needed, along with the continued need to support field staff, and full institutionalization of the tool's capabilities.

- A City Manager sponsored evaluation of CMUD **customer service** was completed in October 2011. Implementation of the resulting 40 Point Improvement Plan began

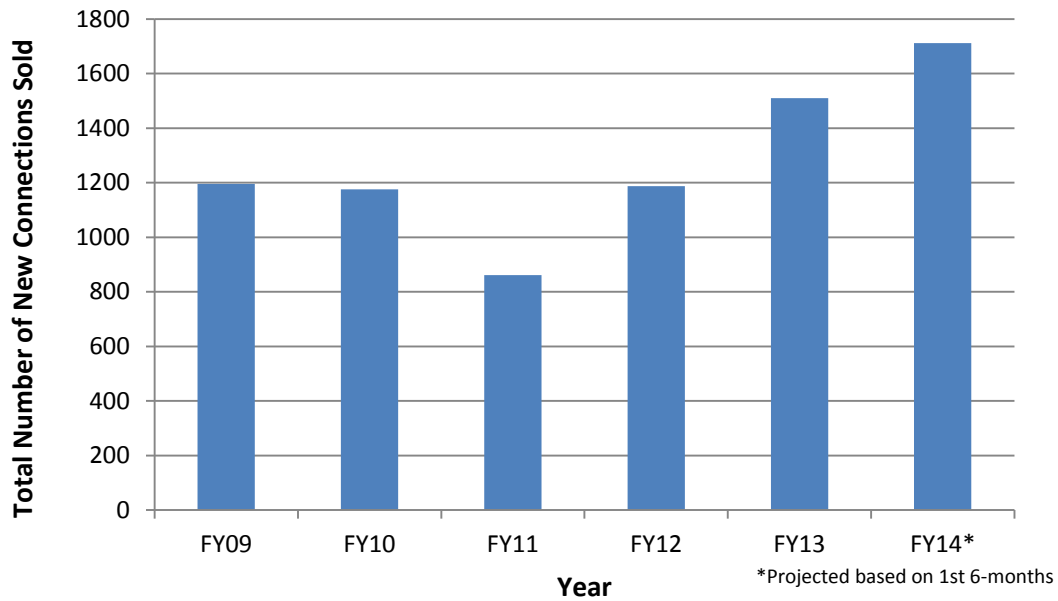
immediately. As of 2014, over 85% of the identified items have been instituted as part of a continuous improvement process. Another objective of the 40 Point Plan was to build a knowledge base around potential new water metering solutions. This knowledge base will support a Water Meter Upgrade Program Request for Proposal (RFP) which will guide the CMUD metering solution of the future. Based on pilot data and additional research, CMUD developed a draft RFP scope for the future metering solution in May 2013. This scope was completed and an RFP issued in July 2014. Another suggested project was to explore a customer assistance program. Scoping of this assistance project has begun.



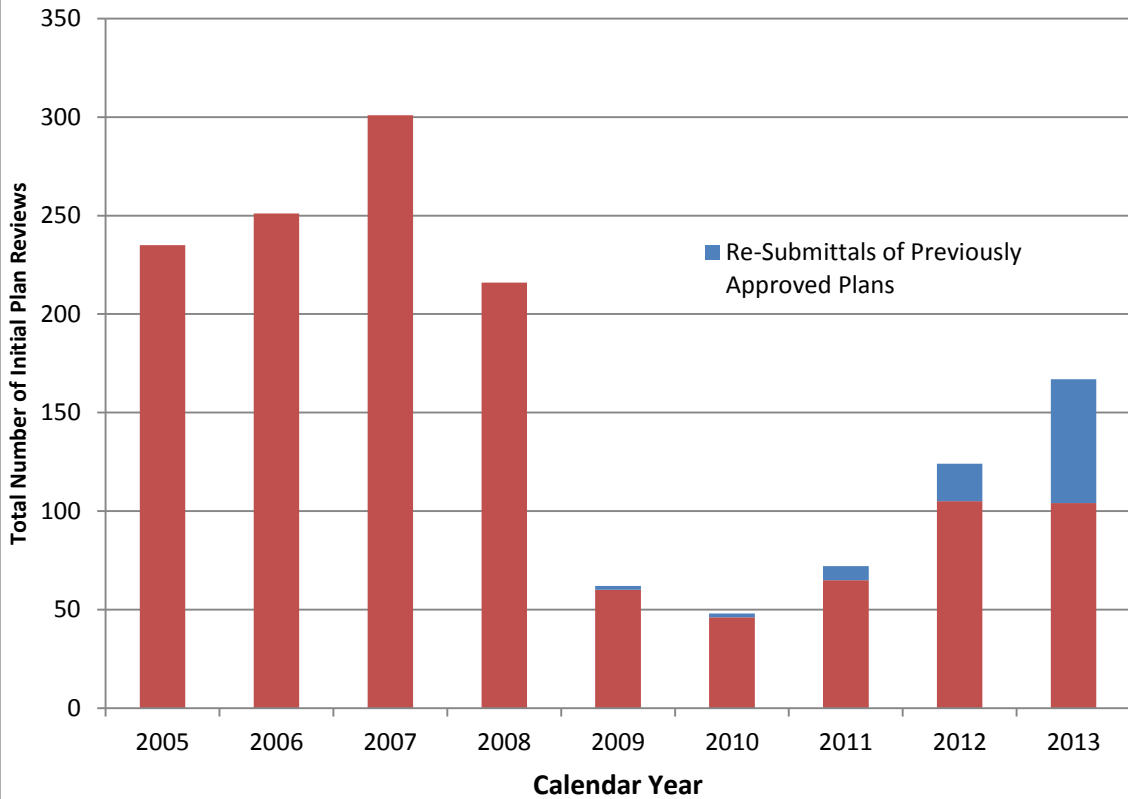
Pilot plant consumption testing as a water meter upgrade research tool

- **Operational Specifics:**
- Based on many parameters that have been observed, including some increase in new connections and more initial plan reviews as shown below, some improvement in the economy has occurred in 2013 and 2014. These improvements have led to increased customer service requests, just as increases in regulations have led to service level impacts.

New Connections Sold through the New Services Section



Total Number of Plans Submitted to the Developer Funded Section for Initial Plan Review



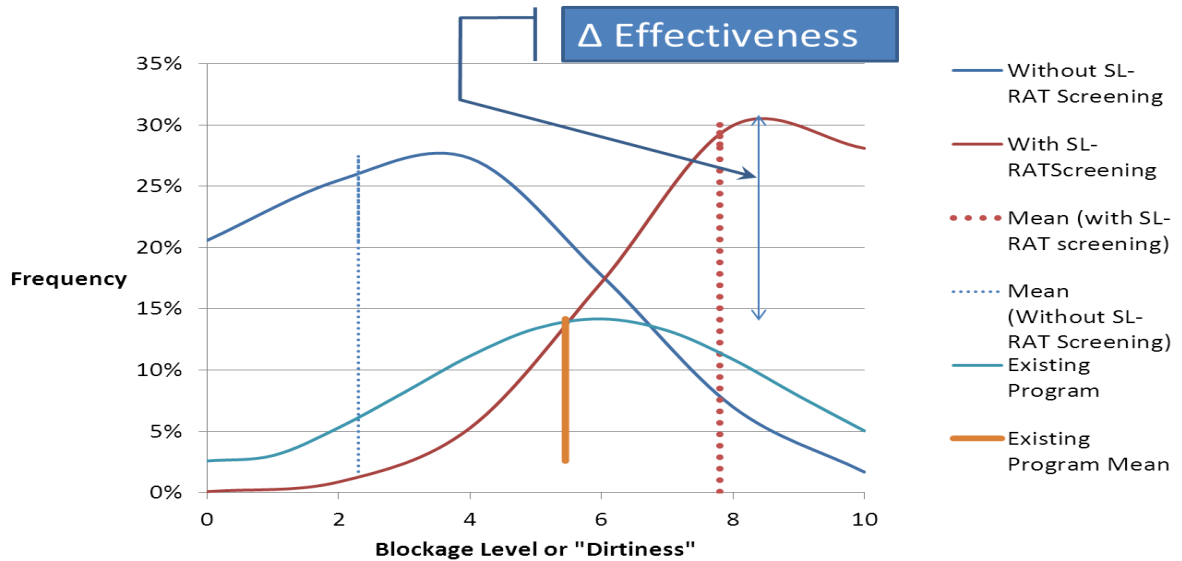
- Although the economic environment has not returned to levels seen prior to 2007, additional needs for staffing to respond to customers have unfolded. **Staffing will be added in FY15 along with a continued effort to maintain a lowered vacancy rate.**

COMMUNITY SUSTAINABILITY
Economic Development

Service Level Change	Number of Positions	Focus
Increased need for plan review for subdivisions and backflow	2	Meet growing need and also reduce number of days for the review process; reducing days will assist with meeting customer service needs and economic development needs
Increased need for construction inspection of backflow, taps, and developer-driven projects	2	Ensure staffing for critical inspections and reduce delays for developer
Number of companies with high strength waste is increasing	1	Add resource to help permit these companies in timely manner; will also provide bandwidth for more customer service and customer education about potential environmental concerns

- Reduced levels of **maintenance** to plant equipment and piping systems increases the risk of equipment failure. This results in higher risk of failure to satisfy customer service and regulatory requirements, and in higher risk of potential environmental impacts. Measures have been taken to re-focus resources on maintenance throughout the treatment, collection, and distribution system as crews were added in FY13 by filling long-term vacancies. The CMUD system includes over 8,000 miles of pipe, 5 wastewater treatment plants, 3 water treatment plants, and more than 70 lift stations. More detailed analysis of maintenance needs have become available to CMUD as a result of new practices using technology tools such as WAM. The data demonstrates that CMUD will continue a maintenance focus even as new strategic methods reduce cost exposure. For example, the new acoustic tool of listening for blockages using the sewer line rapid assessment tool, SL-RAT, has made it possible to clean more strategically, yet CMUD staff members realize that the need is still great to clean blocked pipes before a sewer overflow can result. As can be seen in the data, CMUD is making every effort to become more efficient and effective.

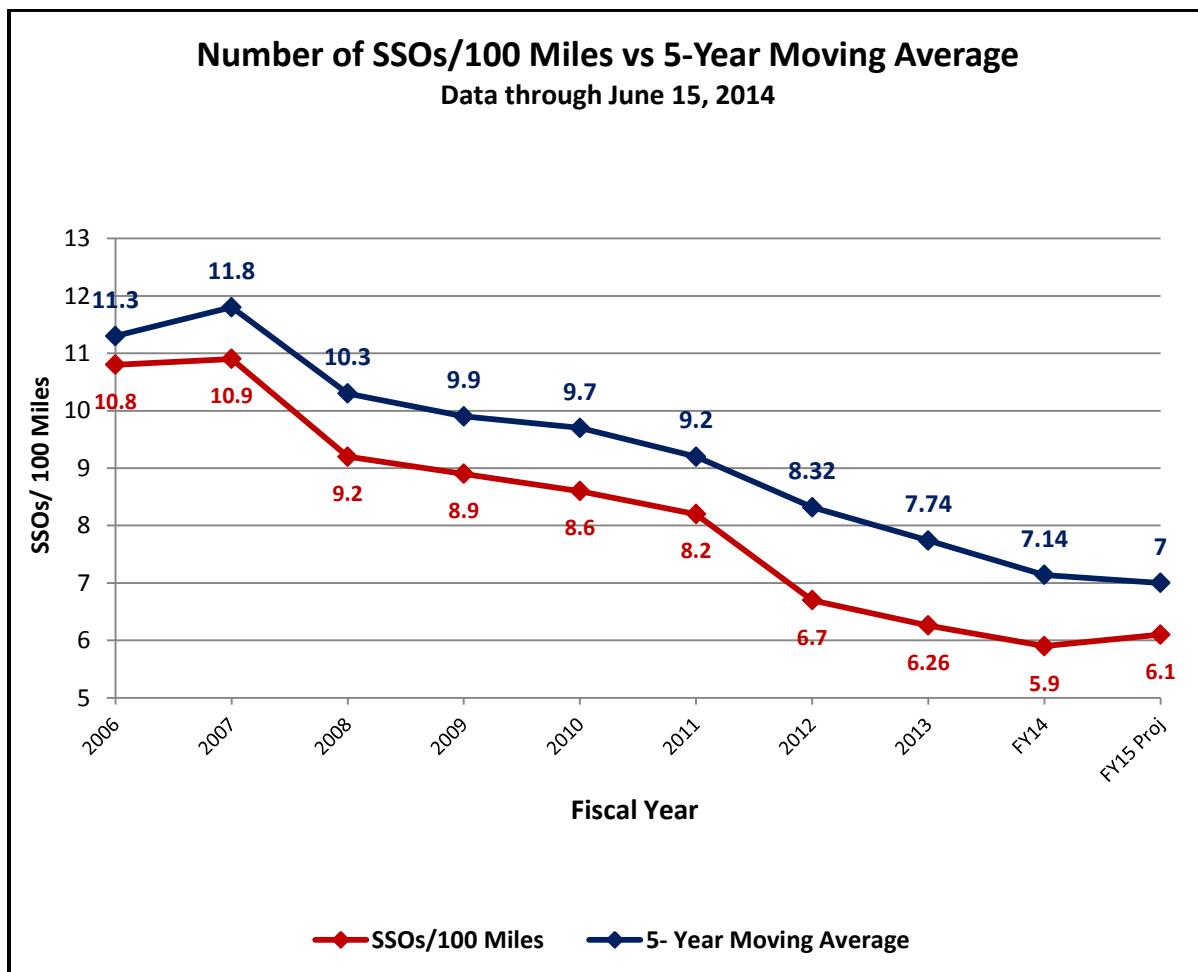
**Shift in Distribution of "Dirtiness" Condition for Random Program,
Existing Program and Condition Based Program**



CMUD Strategic Cleaning Study			
Impact of SL-RAT on Central Business District Sewer Cleaning ahead of the 2012 DNC Event			
166, 512 Feet in Sewer Cleaning Project			
Resources Consumed		Using INDUSTRY STANDARDS	Using SL-RAT SCREENING
SL-RAT Inspection	\$0.09/foot		\$15,000
Sewer Cleaning "on-street" conditions	\$1/foot	\$166, 500	\$46,600
CCTV Quality Control "on-street" conditions	\$1/foot	\$166, 500	\$46,600
TOTAL RESOURCES CONSUMED (estimated in dollars)		\$333,000	\$108,200

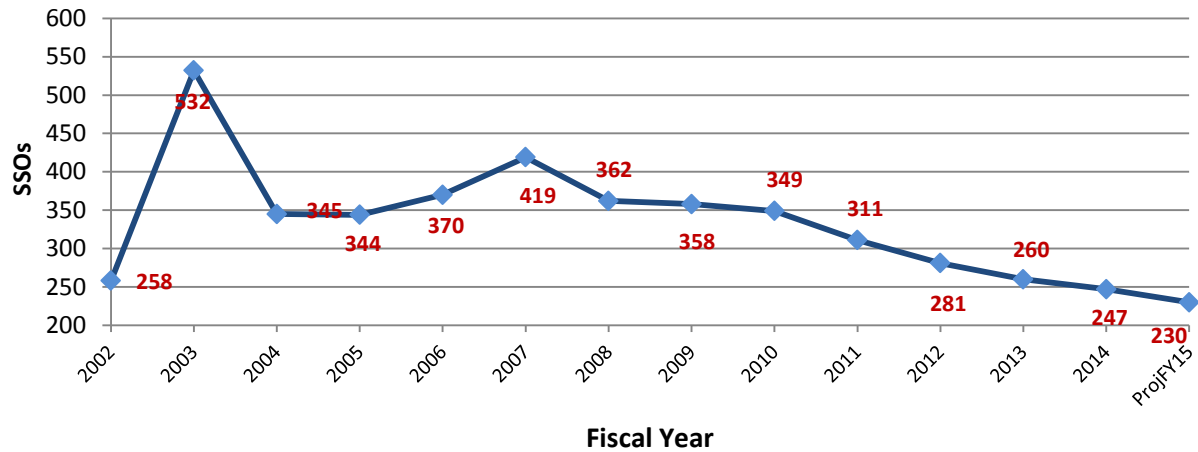
However, the technology has also clearly revealed that the need for maintenance continues to grow in order to protect the piping systems and equipment for long service life.

- **Reducing the number of Sanitary Sewer Overflows (SSOs)** remains a challenge in the CMUD system even with the strategic cleaning focus. CMUD has resolved the EPA Administrative Order to reduce sewer spills, which was a formal regulatory agreement requiring the completion of a list of actions within a specified time frame. Despite completion of these concerted actions, SSOs have not been sufficiently decreased, and still occur too often. In the past due to unfunded vacancies, CMUD had been challenged to perform the labor intensive work necessary to clean sewer lines to remove grease build-up that significantly contributes to sewer overflows. Significant progress was made filling vacant positions, training new hires, and maintaining additional crews in FY13. An ongoing focus on maintaining a low level of vacancy and high productivity will be required to continue reducing the number of SSO's. **Staffing for additional cleaning resources will be added in FY15 along with a continued effort to maintain a lowered vacancy rate.**



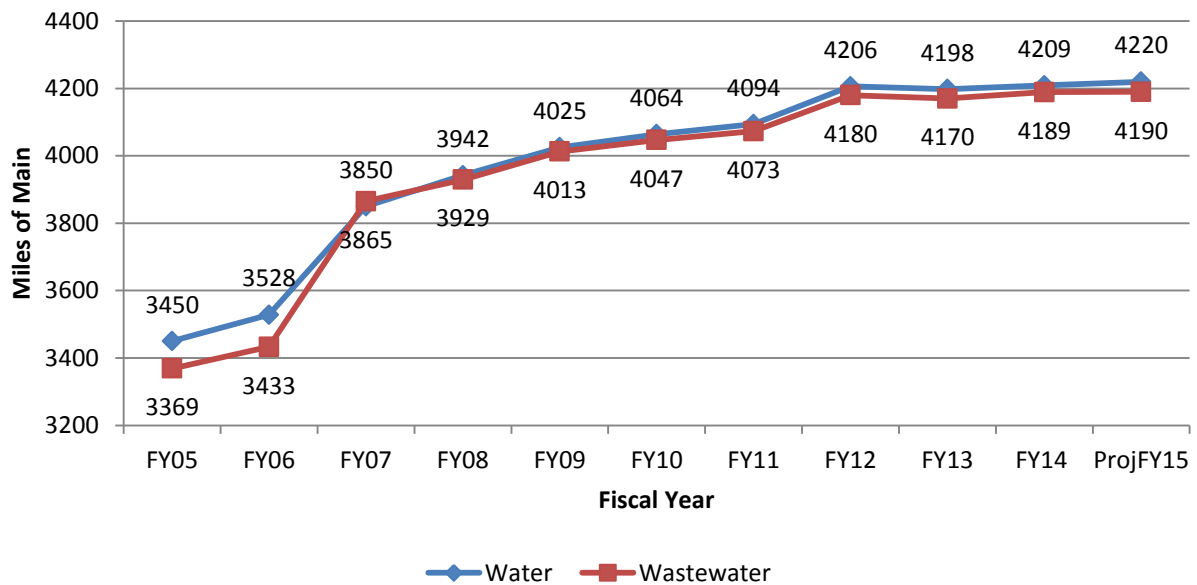
Number of Sewer Overflows Over Time

Data Through June 15, 2014



System Growth: Miles of Main

Through June 15, 2014



- For the calendar year of 2012, CMUD locates staff received 125,331 locate requests. Actual locates performed were 73,439 for a 58.6% completion rate. Although CMUD staff members have been providing locating services for some time, a regulatory change further increases the scope and workload, with the new regulatory requirements necessitating locating underground water and sewer lines ahead of any third party excavation with greater accuracy. Further, this update to the damage prevention law has a provision for civil penalties for inadequate location. With additional staffing, the Locates group will be able to provide more responsive service to over 130,000 annual NC One-Call (NC811) requests for Mecklenburg County while meeting the requirements of the amended act. In FY14, current crews are servicing approximately 60% of all calls received by NC One-Call. The other 40% currently being screened will require more thorough analysis. In FY14, there has been a 16% increase in total locates service calls and CMUD is on track to have the highest number of requests since FY08. Additional staffing will enhance the ability to protect CMUD's distribution and collection system, avoid possible civil penalties, and take on the additional responsibility of locating gravity sewer lines. **Staffing for expanded leak response and locates will be added in FY15 along with a continued effort to maintain a lowered vacancy rate.**

PRODUCT QUALITY

Regulatory compliance

Service Level Change	Number of Positions	Focus
Increased sewer cleaning	4	Add sewer cleaning resources to continue lowering the number of sewer overflows
Increased locates	4	Changes in NC Law require more locates. Add one position per service zone

- Resources normally responding to **water leaks** have been diverted to respond to SSOs and SSO prevention in the past. SSOs are a matter of public health. This caused water leak response time to increase to an average of 30+ days in FY11. Water leaks result in loss water and can cause property damage and increase the number of calls for service from customers. Restoration of some field operations crews, along with the use of private contractors in FY2012 and FY2013, has stabilized and reduced our

response times. Greater focus on reducing water leaks occurring in our 4000 plus miles of water distribution main has begun and will need to increase in FY15. **Staffing will be added in FY15.**

CUSTOMER SATISFACTION

Manage Customer Relations & service access/delivery.
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Service Level Change	Number of Positions	Focus
Water leak rapid response crew	4	Respond quickly to customer calls reporting water leaks and fix as many as possible on the initial trip

STRATEGY AND PLANNING

Over the past several years, CMUD has experienced several challenges and transitions. Responding to these challenges and transitions has required deliberate evaluation and planning. Effective planning requires not only understanding what is to be accomplished, but also what resources are available and how best to use them. Successful planning identifies the obstacles faced and determines what change is needed to succeed. The strategic planning process defines major projects and initiatives, and anticipates significant needs, challenges and risks. Strategic planning is a continuous process. In many ways, the thought process utilizing Leadership Team collaboration is as valuable as the final plan itself. The planning must be completed with our core principles in mind:

- Providing safe drinking water and efficient sewer service to our community year after year.
- Maintaining exemplary financial management.
- Providing excellent customer service.

Long Range Strategic Plan

To assist in periodically refreshing the department's long range strategy, a SWOT (strengths, weaknesses, opportunities, and threats) analysis is deployed by the CMUD Leadership Team. The FY2012 analysis resulted in the identification of strengths, weaknesses, opportunities and threats shown below.

	Helpful to achieving the objective(s)	Harmful to achieving the objective(s)
	Strengths	Weaknesses
Internal Origin (attributes of the organization)	<ul style="list-style-type: none"> • Quality people – diverse, flexible, nimble, creative/knowledge, well-trained, team ethic, dedication 	<ul style="list-style-type: none"> • Adequate Staff Resources going forward – more cross training for redundancy is needed, more procedures, more use of technology; Knowledge retention
	<ul style="list-style-type: none"> • Strong Financial Positions - AAA bond rating, competitive rates, adequate funding 	<ul style="list-style-type: none"> • Manage financial factors – mitigate large annual rate increases, mitigate variable revenue stream, cut debt without loss in maintenance
	<ul style="list-style-type: none"> • Good utility capacity – reliability, compliance with Safe Drinking Water Act, compliance with Clean Water Act, Biosolids handling, sufficient lines to support growth 	<ul style="list-style-type: none"> • Manage Customer relations and service access/delivery – develop brand/image, improve performance to maintain customer support, increase satisfaction
	<ul style="list-style-type: none"> • Leadership focus on continuous improvement, sustainability, innovation, communication, engagement with City and industry 	<ul style="list-style-type: none"> • Agility – be more preventive with our actions and less reactive, do more root cause analysis, measurement and control of the right things
	<ul style="list-style-type: none"> • Community Support and Awareness – public education, environmental awareness, improving customer service relationship, stakeholder interest and support 	<ul style="list-style-type: none"> • Silo (work) mentality has to be removed – City; Division to division; Individual

External Origin (attributes of the environment)	Helpful to achieving the objective(s)	Harmful to achieving the objective(s)
	Opportunities	Threats
	<ul style="list-style-type: none"> Financial Viability - Develop alternative revenue sources 	<ul style="list-style-type: none"> Threats to infrastructure and Operational resiliency
	<ul style="list-style-type: none"> Operational Resiliency - Develop/implement all hazard emergency preparedness plan 	<ul style="list-style-type: none"> Challenges to water supply – water resource adequacy, IBT, product quality
	<ul style="list-style-type: none"> Customer Satisfaction – continue to enhance customer service 	<ul style="list-style-type: none"> Instability in economy, politics, regulations, etc. – challenge to planning and financial viability
	<ul style="list-style-type: none"> Stakeholder Understanding and Support - Implement comprehensive communications plan for internal and external 	<ul style="list-style-type: none"> Potential loss of partnerships – Duke Energy, Counties like Union, York, and Cabarrus, other water users, etc.
	<ul style="list-style-type: none"> Community Sustainability and Water Supply Adequacy - Expand and strengthen regional partnerships 	<ul style="list-style-type: none"> Identifying and maintaining needed resources – need stakeholder understanding and support ; need strong leadership, qualified staff, technical resources, security, tools

The results of the SWOT analysis and discussion were then used to develop the key list of long term objectives (shown below). These objectives are reflected in our Balanced Scorecard as Initiatives and Measures.

OBJECTIVES FOR STRENGTHS AND WEAKNESSES (INTERNAL FOCUS)
PRODUCT QUALITY
Meet all requirements of the Safe Drinking Water Act and Clean Water Act.
CUSTOMER SATISFACTION
Manage Customer Relations & service access/delivery.
EMPLOYEE & LEADERSHIP DEVELOPMENT
Promote employee and leadership development.
EMPLOYEE & LEADERSHIP DEVELOPMENT
Encourage Wellness.
OPERATIONAL OPTIMIZATION
Define and prioritize staff resources to optimize operations.
FINANCIAL VIABILITY
Maintain stability in financial management by maintaining fund balance ratio of 50% of operating fund budget, debt-to-PAYGO capital funding mix of 60-40 and debt coverage ratio greater than 1.8.
OPERATIONAL RESILIENCY
Foster culture of agility and adaptability.
COMMUNITY SUSTAINABILITY
Engage in Citywide efforts for change management and continuous improvement.
INFRASTRUCTURE STABILITY
Reduce risk management exposure

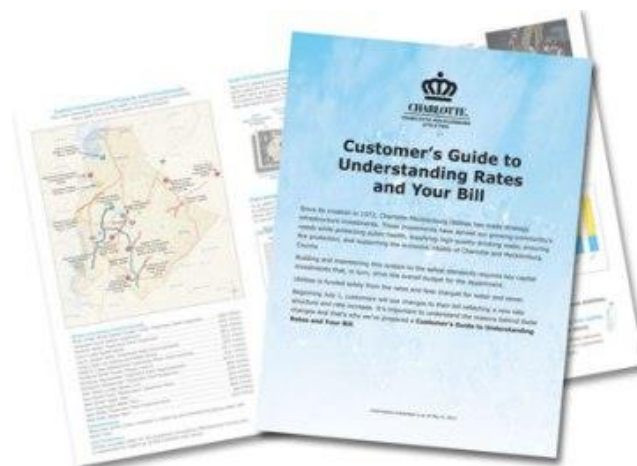
OBJECTIVES FOR OPPORTUNITIES AND THREATS (EXTERNAL FOCUS)
OPERATIONAL RESILIENCY
Complete development and implementation of the All Hazards Emergency Preparedness plan.
COMMUNITY SUSTAINABILITY AND WATER RESOURCE ADEQUACY
Continue a leadership role in regional water resources planning and ensure long term availability of water supply
STAKEHOLDER UNDERSTANDING AND SUPPORT
Develop and Implement a Comprehensive External Communication Plan.
STAKEHOLDER UNDERSTANDING AND SUPPORT
Expand and Strengthen external partnerships
OPERATIONAL RESILIENCY
Develop agility in response to risks.
FINANCIAL VIABILITY
Expand alternative revenue sources.
CUSTOMER SATISFACTION
Enhance Customer Service

CMUD's long range strategic plan includes a multipronged approach to several core Utility topics detailed below:

Core Topic: Financial Management

Strategy:

CMUD continues to offer competitive rates. CMUD's AAA bond ratings have saved ratepayers millions of dollars as a result of securing low interest rates. Rates and fees will be set to recover the full cost of operating, financing, maintaining, replacing, and expanding the Utility as needed. Rates and fees are based on equitable distribution of the costs to provide service. Efforts continue to maintain a fund balance ratio of 50% of operating fund budget, debt to PayGo capital funding mix of 60/40, and debt coverage ratio of 1.8.



To re-focus on equitable distribution of costs and recovering full operational costs, a comprehensive rate methodology study was completed in FY2011. The rate methodology study involved citizen input and is expected to help address public concerns about *how* customers are charged for water and sewer service. It defines the next evolution in the rate structure by addressing public concerns about rate equity, environmental and economic sustainability, water conservation, and affordability. CMUD's competitive rates result from effective management, strategic use of technology, and managed competition efforts. Over the years, CMUD has maintained some of the lowest rates in the region.

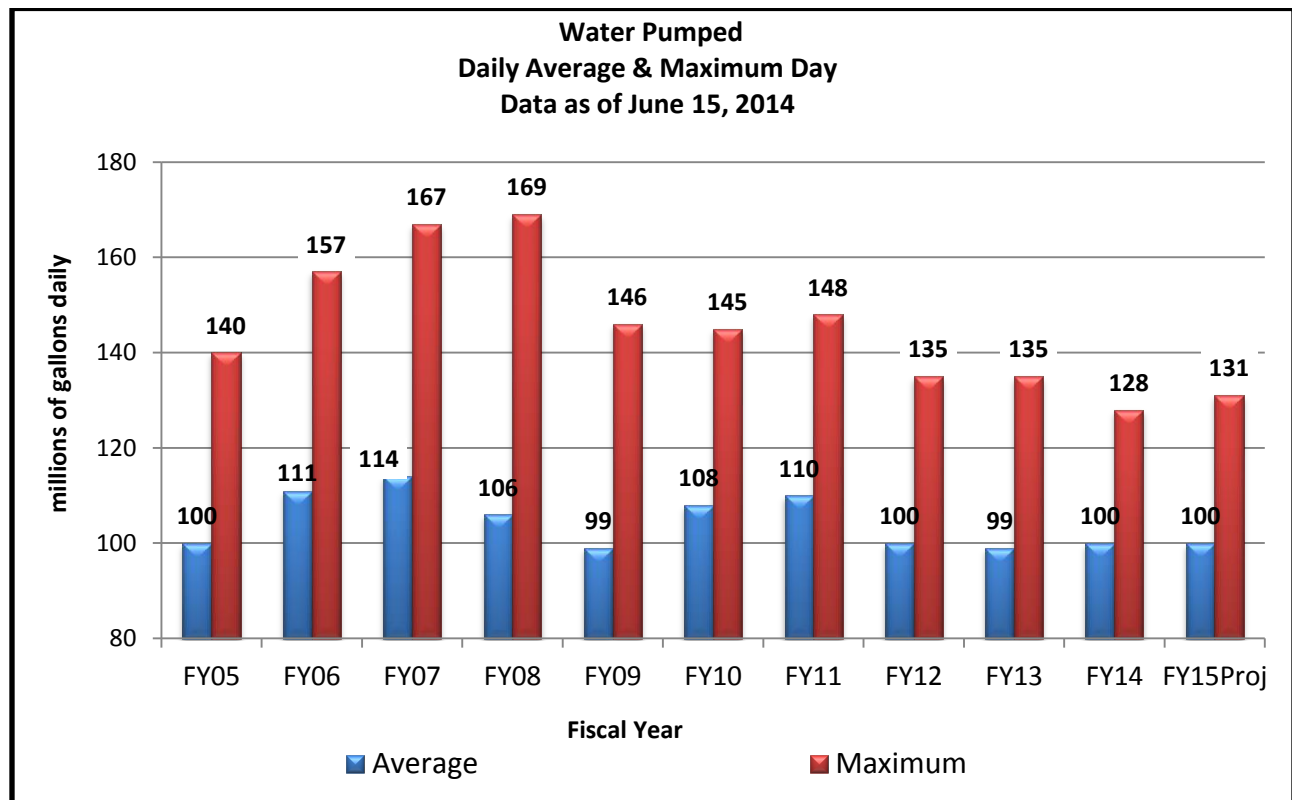
Core Topic: Drinking water quality

Strategy:

Provide water treatment and distribution to reliably, consistently, and efficiently produce and distribute drinking water that meets or surpasses all regulatory requirements and that is aesthetically pleasing to customers. This is accomplished through a multi-barrier approach by protecting and utilizing the highest quality supply source(s), operating and maintaining modern treatment facilities to high standards,

protection from contamination caused by backflow and/or distribution system deficiencies, and monitoring and measuring water quality throughout the system.

Performance levels are continually improved, sustained, and monitored through active participation in the Partnership for Safe Water and through audited compliance with other industry standards.



Core Topic: Interbasin Transfer (IBT)

Strategy:

The existing IBT Authorization Certificate issued by N.C. regulators allows for up to 33 mgd of IBT from the Catawba River basin to the Rocky River Basin on any single day each year. CMUD will extend indefinitely the ability to comply with this Authorization by timely and accurate monitoring of actual and committed IBT amounts and by planning for and developing infrastructure that controls future IBT amounts.

The existing Authorization excludes service to the Goose Creek Basin of Mecklenburg County. CMUD will provide service to its entire service area, including Goose Creek basin, by obtaining authorization from NCDENR to include the basin within the IBT area.

Core Topic: Water Metering

Strategy:

Meter all water usage to provide accurate, timely data that is used for:

- Customer billing
- Detection of leaks downstream of meters
- Resolution of billing complaints
- Customer account management
- Evaluation of system performance

Water metering is accomplished through a reliable, consistent, cost effective process utilizing one or more service providers that minimizes risk, provides for ongoing technology and process updates, instills customer confidence, and that complies with industry standards.

AWWA standards are followed to estimate the ratio of revenue (metered) to non-revenue water. Metering accuracy within AWWA standards are maintained through the proper maintenance, replacement, and/or calibration of metering equipment and through an established metering and billing audit program.



Comparison visits to other Utilities for Meter Strategy

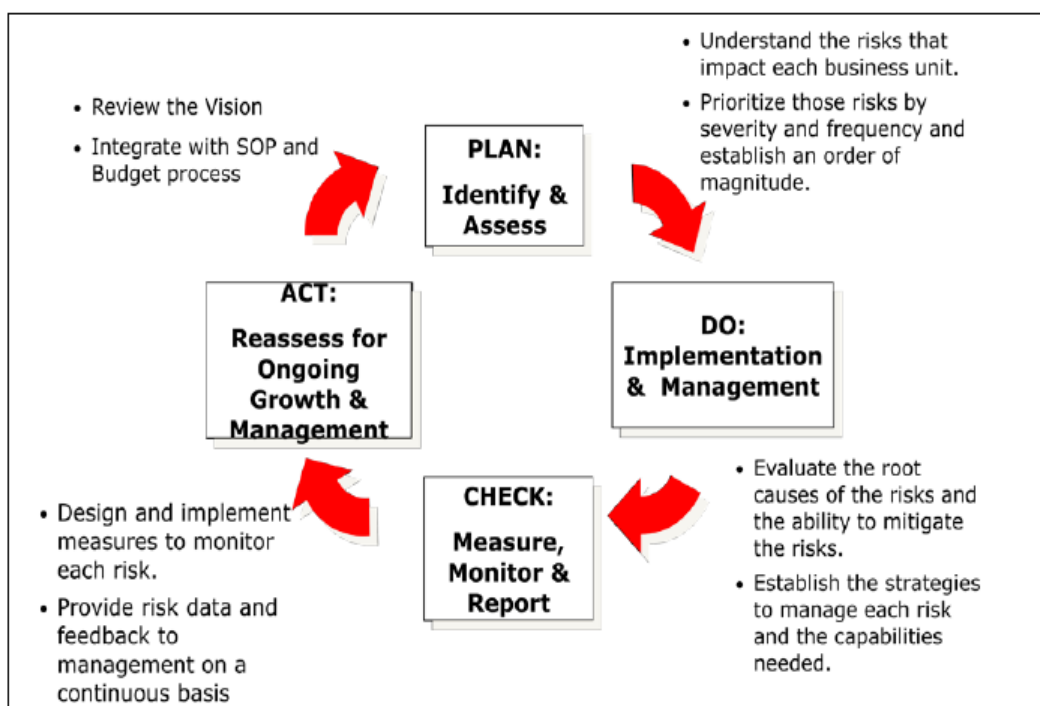
Core Topic: Risk Management

Strategy:

Improve the reliability, safety, and cost control capabilities of the operation, management, financing, and expansion of the utility system by developing enhanced risk management practices. Identification and mitigation of risks is an integral part and consideration of each significant action by CMUD. The types of risk considered include risks to the public, risks to employees, risk to the environment, risk to the economies of

the service area, financial risks to the utility, risk of reduced service levels, and risk to the good reputation of the City and CMUD.

Significant on-going actions include development of study recommendations and implementation of study results, design and construction of infrastructure, large maintenance and/or rehabilitation projects, development of capital investment plans, recommendation of capital and operating budgets, recommendation of changes to rates and fees and/or rate and fee methodology, and the purchase of major equipment. In each case, deliberate decisions are made and communicated about acceptable risk and mitigation levels. Risk Management is coordinated at the Department level, and is the responsibility of each CMUD employee.



RISK PROFILE IMPROVEMENT PLAN

Core Topic: Wastewater Treatment

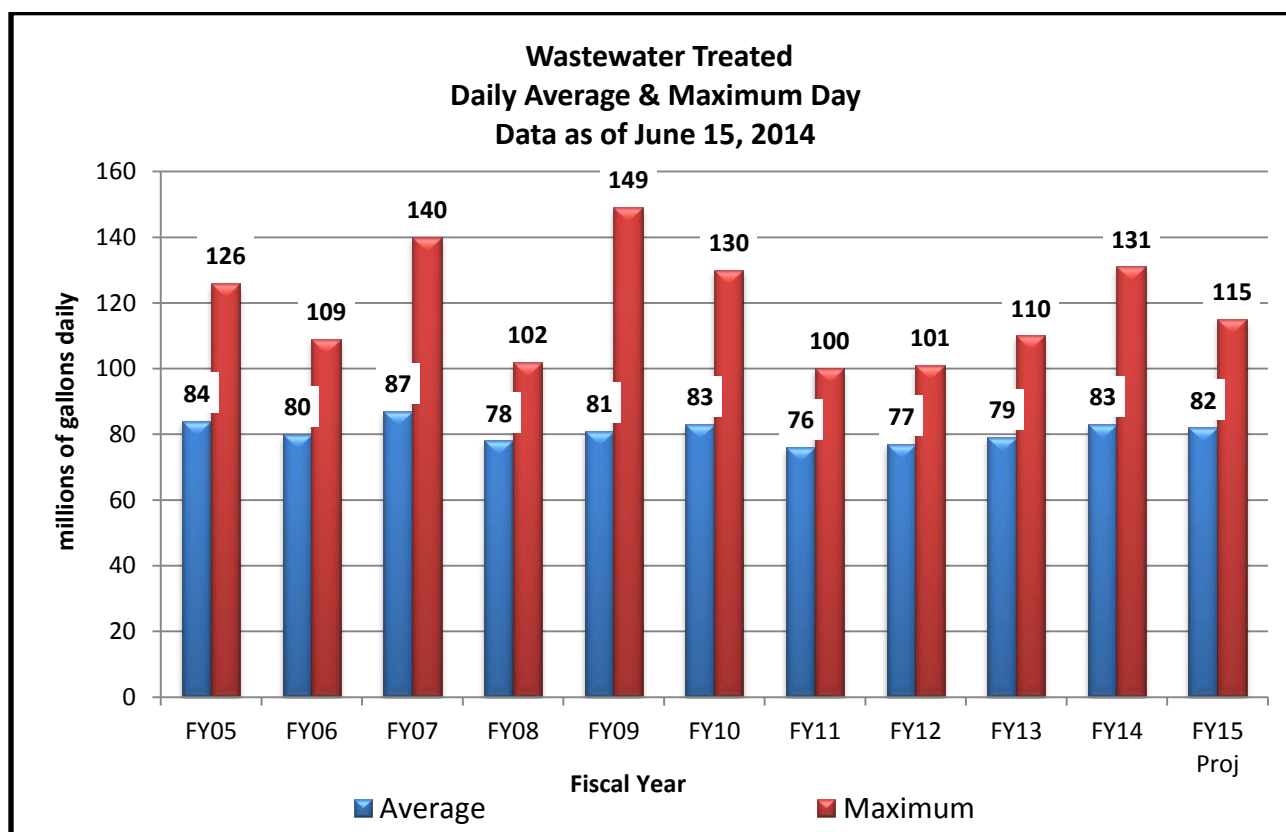
Strategy:

Wastewater produced by CMUD’S customers is treated reliably, consistently, and efficiently to produce effluent that meets or surpasses all regulatory requirements, protects the environment and is aesthetically pleasing to customers. This is accomplished through management of discharges into the wastewater collection system, operating and maintaining modern treatment facilities to high standards, and monitoring and measuring water quality throughout the system. Effluent is discharged in accordance with existing and future NPDES Discharge Permits. CMUD is developing programs and options to reduce wastewater production and to reduce the volume and

pollutant loading discharged to surface waters.

Wastewater flows are managed between various treatment plants operated by CMUD or by CMUD's partners. Regional wastewater management plans are being developed and implemented in a way that maximizes regulatory compliance and environmental protection and minimizes costs and risks for CMUD's customers and for the region.

Performance levels are being improved, sustained, and monitored through audited conformance to continuous improvement via ISO 14001 Environmental Management System standards and other appropriate industry standards.



Core Topic: Treatment Capacity

Strategy:

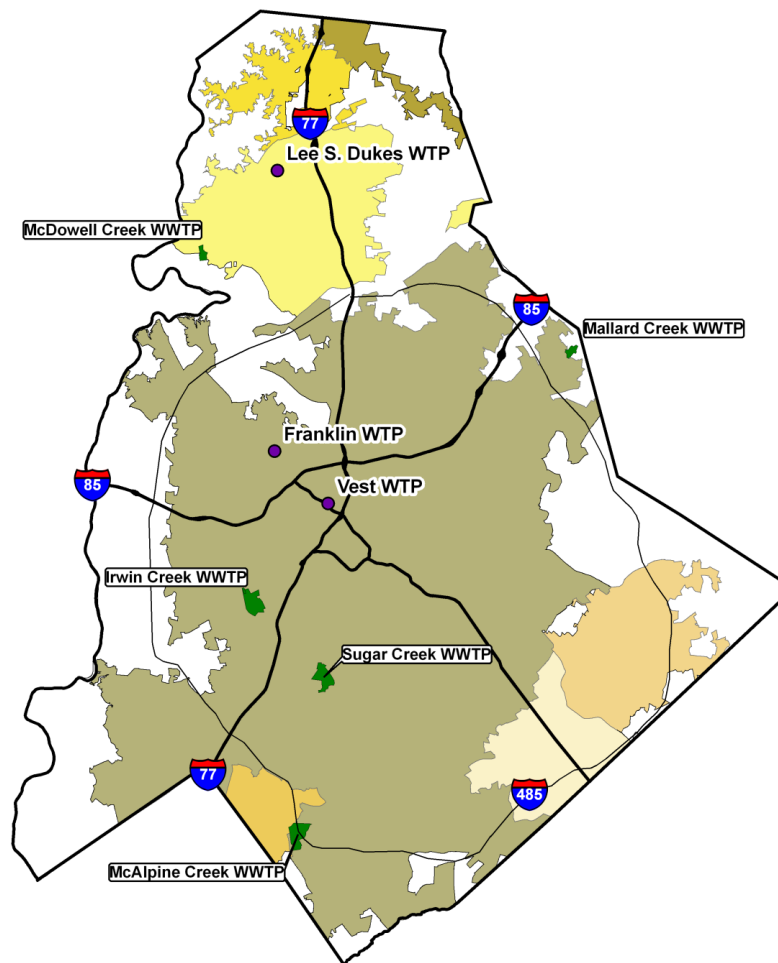
CMUD will maintain reserve capacity for water and wastewater treatment that is at least 20% above the average daily demand as measured over the course of each calendar year. Before reserve capacity falls below 20%, studies will be completed to determine how to restore and maintain the reserve capacity goals.

Reserve capacity needed to meet peak demands will be maintained at 30% above the average of the highest peak demand experienced over the previous three calendar year period.

Effective treatment capacity, (average and peak), will be increased as needed through reliable reduction in demands, regional partnerships, increased utilization of existing facilities, expansion of existing facilities, and/or construction of new facilities.

Available treatment capacity is determined based on reliable plant capabilities, NPDES Permits, and other appropriate factors. The amount of capacity used will be monitored and communicated.

Planning and Engineering are further embedded into operations and maintenance to provide design and contract administration and support for construction, operations, and maintenance of capital facilities to ensure system infrastructure stability and capacity.



Core Topic: Collection and Distribution System Capacity System Capacity

Strategy:

CMUD provides maintenance of infrastructure to effectively deliver treated water and collect wastewater through over 8,000 miles of water and sewer mains. Focus continues on the reduction of sanitary sewer overflows (SSOs) in the collection system and maintaining a high level of leak repair response in the distribution system.

Less frequent equipment maintenance, due to funding constraints, increases the risk of repeated and unexpected equipment failure. This results in higher repair and replacement costs due to deferred maintenance. Measures have been taken to re-focus on maintenance throughout the treatment, collection, and distribution system and will need to be monitored and measured for results.



Core Topic: Continuous Improvement / Competitiveness

Strategy:

CMUD has increased performance levels using continuous improvement processes and techniques coordinated at the Department level and implemented at the division level. Continuous improvement program will be used to achieve and maintain ongoing operational and economic competitiveness and is coordinated with the Balanced Scorecard/Business Planning process. The attributes of Effective Utility Management are prime drivers for continuous improvement efforts.

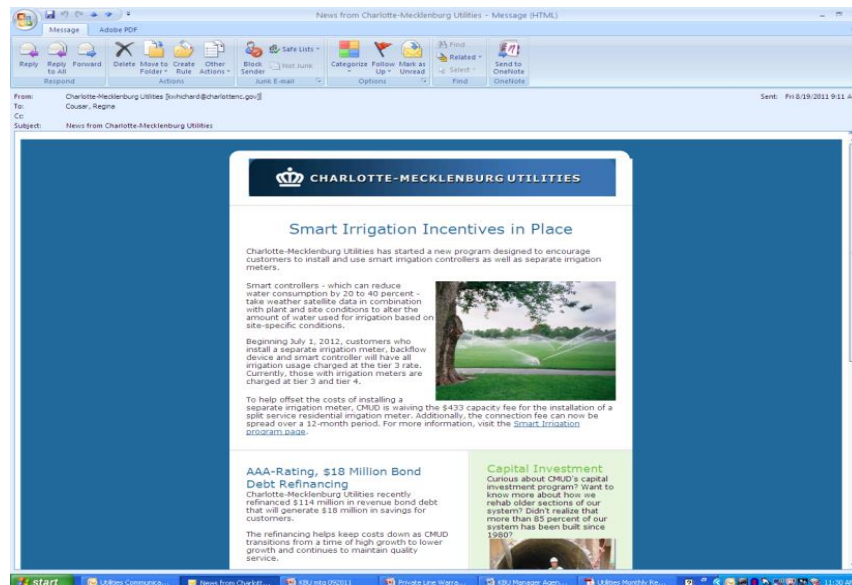
Continuous improvement processes encourage and support operations and management of the Utility in accordance with recognized best practice standards such

as ISO, AWWA, NELAP, and other as appropriate. Compliance with those standards is measured and confirmed by periodic and recurring audit procedures.

Core Topic: Communication

Strategy:

CMUD communicates with customers, elected officials, employees, regulators, and stakeholders to assure that operation and management of the Utility is transparent, well understood, and meeting the needs of each group. Communications are coordinated with City Corporate Communications. CMUD's communications plan is being updated to focus on community engagement.



e-News from the Charlotte-Mecklenburg Utility Department



Shown: Tour of water treatment for the International Federation of Municipal Engineers.

Core Topic: Customer Service

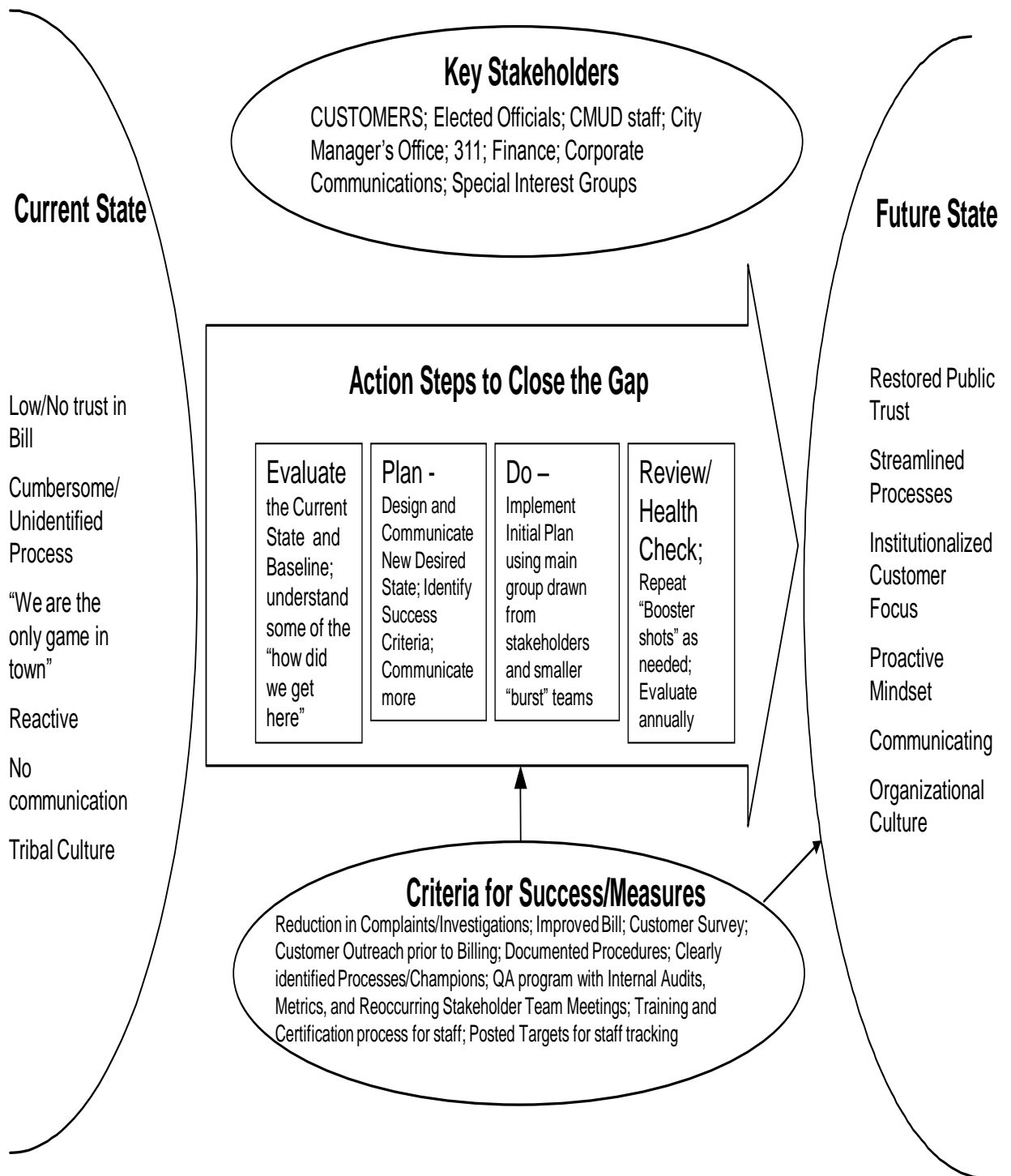
Strategy:

CMUD is implementing the strategic actions identified in the 40 Point plan and obtain certification to a best practice standard for ongoing performance management.

An Evaluation Project initiated by the City Manager was completed in September 2010. The evaluation has led to a valuable reset in the strategic plan for customer service. A field audit of 9,000 meters was completed in the summer of 2010 as part of the evaluation and has led to an ongoing internal operational audit of meter reading equipment. A benchmark study was completed to evaluate current policies related to delinquency, payment arrangements, account holder requirements and leak adjustment practices. The benchmark study highlighted areas where CMUD led other water service organizations and where CMUD could improve.



Shown: Customer Service neighborhood fair to assist with billing.



BLUEPRINT FOR 40 POINT IMPROVEMENT PLAN

Core Topic: Biosolids Management

Strategy:

Biosolids are the nutrient-rich organic materials resulting from the treatment of domestic sewage at a wastewater treatment facility. Through biosolids management, solid residue from wastewater treatment is processed to reduce or eliminate pathogens and minimize odors, forming a safe, beneficial agricultural product. Farmers and gardeners have been recycling biosolids for ages. Biosolids can be applied as fertilizer to improve and maintain productive soils and stimulate plant growth. They also are used to fertilize gardens and parks and reclaim mining sites. Biosolids are carefully monitored and must be used in accordance with regulatory requirements.

CMUD continues to manage its biosolids program with a best practice EMS which is ISO 14001:2004 certified (or equivalent) by an external audit process. The Environmental Management Systems (EMS) emphasizes commitment to continuous improvement and pollution prevention. A Biosolids Master Plan has been completed to review past practices for return on investment, sustainability, and to project the best path forward.



Biosolids are land applied to farm land in the region.

Core Topic: Information Management

Strategy:

CMUD has increased the use of technology in the field to provide better service to customers. Additional emphasis has been placed on the deployment of technology to assist with metrics for monitoring and measurement, and the use of technology for conformance to best practice standards. Technology will be a primary tool that assists in the improvement in business processes as part of the continuous improvement effort.

Core Topic: Employee Training and Development

Strategy:

CMUD strives to hire and maintain a skilled diverse workforce. Due to higher requirements for entry-level positions in the utility field, CMUD has at times experienced difficulty finding qualified applicants. The strategy is to remove any barriers in the hiring and onboarding process to insure a timely hiring schedule. Once hired, training and skills development process focuses on internal training opportunities supplemented by external development courses as needed to maintain a known level of technical and professional expertise.



Crews use robotic cameras to check wastewater pipes

ACCOMPLISHMENTS

Over the past several years, CMUD has achieved numerous accomplishments. The most recent significant achievements include:

- **Providing safe drinking water and efficient sewer service to our community year after year.** CMUD consistently meets Environmental Protection Agency's *Safe Drinking Water Act* and *Clean Water Act* requirements.
- **Maintaining exemplary financial management.** CMUD's AAA bond ratings have saved ratepayers millions of dollars as a result of securing low interest rates.

Several Awards were recently earned for our environmental stewardship and operational efficiency, along with other significant accomplishments:

- CMUD's own Steve Swann and the Easement Clearing App team [Rob Bailey, Matt Smith, Dave Williams and Nianwei Liu (OCIO)] were honored as 2013 City Manager's

Award winners during a May 2014 recognition event at the Booth Playhouse uptown. Steve is the **City's individual Community Ambassadorship** winner and the ECA Team won in the **Innovation** category. Kudos also to CMUD's own Jackie Jarrell and Christine Edwards, who are members of the City's Energy Efficiency and Conservation Community Block Grant Team, which won the **Outstanding Work/Group Award**.

- On June 1, 2014, the City of Charlotte officially began **the contracted operations and maintenance (O&M) of Union County's five wastewater treatment plants**. CMUD will run the plants and all costs will be paid by Union County, which retains full ownership of the facilities. As part of the arrangement, 16 staff positions (including nine existing Union County Public Works employees) became City of Charlotte employees.
- In 2014, CMUD officially relocated its Field Operations Zone 1 Facility to 11609 **Hord Drive in Huntersville**. What once was a lumber warehouse has now become an efficient and modified structure for housing repair crews, customer service staff and a few locators. The new facility has become a welcoming site for the employees who report in that area to fulfill their daily task and functions for the City of Charlotte.
- After completing the prescribed fire on city and county properties at the end of Kidd Road in Huntersville near McDowell Creek Wastewater Treatment Plant, a contractor planted more than **57,000 loblolly pine trees on 106 acres**. The contractor completed the planting in three days. The trees will promote long-term wildlife habitat, environmental protection and education. The prescribed fire helped kill unwanted non-native invasive plant species that compete with native vegetation. The trees will provide revenue when harvested in 30 years.
- **Behavior based safety (BBS)** focuses on the interaction between people's behavior and the working environment, to assist in reducing preventable accidents. During April 2014, most staff participated in BBS launch events. The next step is starting observation and reporting process. Supervisors are encouraged to conduct at least four observations a month.
- CMUD received the **Platinum Award for Utility Excellence** from the Association of Metropolitan Water Agencies (AMWA) in 2012. AMWA consists primarily of water utility executives for larger public drinking water systems from across North America. CMUD was one of 10 utilities to qualify for the Platinum Award. To earn this recognition, CMUD was evaluated on achievement of 10 Attributes of Effective Utility Management as established by the U.S. EPA in partnership with several professional associations. The 10 Attributes include: product quality, customer satisfaction, employee & leadership development, operational optimization, financial viability, infrastructure stability, operational resiliency, community sustainability, water resource adequacy and stakeholder understanding & support. Further, **in 2013**, CMUD was awarded the **NACWA Gold Award for Excellence in Management**, which is based on achieving the attributes for Effective Utility Management.



Shown: In October 2012, CMUD Director Barry Gullet received the AMWA Platinum Award for Utility Excellence on behalf of CMUD.

- All five **wastewater treatment plants received 2012 Peak Performance Awards** from the National Association of Clean Water Agencies (NACWA). These awards are for compliance year 2011. Awards are given in the year following compliance performance. In 2013 NACWA recognized Mallard with a Platinum award, and McDowell and Sugar with Silver awards for compliance in 2012. All of the plants were submitted again for consideration in the award process for compliance year 2013. The 2014 awards are pending.
- The annual third party audit of the **International Standards Organization (ISO) 14001 Environmental Management System** took place the week of January 27th. The auditor performed a land application site inspection, and spent several hours each day at Mallard, McDowell and Sugar Creek treatment facilities. The EMD ISO program is considered “mature” as we are going on our 8th year. At the closing meeting the auditor said that the CMUD EMS is a “model program!” Congratulations to all who help to make this the ongoing success that it is. CMUD achieved another milestone on its journey toward full-agency Compliance. The EMS covers the wastewater treatment plants (Sugar, Mallard, and McDowell) along with the CMUD Biosolids program and will continue leading the way for the City!
- Laboratory Services successfully completed 2013 State Laboratory Certification Inspection for Drinking Water.
- For calendar year 2012, CMUD professionals at all three of **Charlotte’s drinking water treatment plants received the Area Wide Optimization Program (AWOP) award** from the North Carolina Department of Environment and Natural Resources. Generally speaking, facilities that meet the state’s AWOP criteria are within a top 25th percentile of surface water treatment plants that achieve ‘next level’ higher standards for water quality and protection of public health. The three water treatment facilities - Vest treatment plant on Beatties Ford Road, the Franklin plant on Brookshire Boulevard and the Lee S. Dukes plant in Huntersville – are among only 35 surface water treatment facilities statewide that qualified for this special recognition from NCDENR. These plants met particularly stringent operating and

water quality requirements, especially as it relates to consistent removal of turbidity (cloudiness) from drinking water during the treatment process.

- The water treatment plants are undergoing an accreditation process similar to ISO14001 known as the **AWWA Partnership for Safe Water**. The Partnership is a voluntary program for water organizations designed to **optimize** water treatment plant and distribution system performance through preventative measures, upgrades, and technology applications. It was created through the collaborative effort of the 6 largest drinking water organizations in the US and is managed by the American Water Works Association (AWWA). Franklin WTP has completed phase III of IV, while Vest and Lee Dukes have each completed phase II. CMUD was awarded the AWWA Partnership for Safe Water **Director's Award in 2013**.



Shown: In June 2013, John Huber received the AWWA Partnership for Safe Water Director's Award on behalf of CMUD. At left, wearing glasses is Mr. James Chaffee, AWWA President. At right, is Mr. Peter Grevatt, Director, USEPA Office of Ground Water and Drinking Water.

- The NC American Water Works Association – Water Environment Association (NC AWWA-WEA) is the primary professional association for the water/wastewater industry in NC. At its annual conference in November 2013, many of CMUD staff members received prestigious awards and honors. These included:
 - **In 2012, CMUD won the state-wide competition for the Best Tasting Water.** As part of a tasting competition, a panel of judges selected the winning sample that was produced by the Franklin WTP. **In 2013**, CMUD won second place in the statewide competition for the Best Tasting Water. This was not quite as thrilling as our first place finish last year, but still gratifying to see a panel of expert judges continue to highly rate Charlotte's drinking water among a stiff field of competition.



- CMUD Environmental Management Superintendent Jackie Jarrell received a **Leadership Appreciation Award** for successfully completing her 1-year term in 2013 as Chair of NC AWWA-WEA. In this capacity, Jackie served as the NC association's CEO and has been responsible for oversight of a \$1M+ budget, the activities of 46 committees, and management of the association's full-time staff. This important role sets the direction of the association, ensures member needs are satisfied and supports a sustainable future for the organization.
- Stuart Rosenberger was selected as 2013 **N.C. Wastewater Collections Operator of the Year**. Stuart, who is CMUD Field Operations Lift Stations Manager, was recognized for his individual contributions to the successful operation and maintenance of sewage collection systems.
- Environmental Management Division won the 2013 **George W. Burke Jr. Safety Award** for their excellent safety program including 'lessons learned' and ISO 14001 safety requirements.



Shown: The wastewater treatment plants are managed by CMUD Environmental Management Division staff.

- Environmental Management's David Cox (McDowell Creek WWTP) received the 2013 **Safewater Maintenance Technologist the Year Excellence Award** for his dedicated professional involvement in the daily maintenance and upkeep of our state's plant assets.

- CMUD Intern Alma Beciragic, an undergraduate student at Queens University of Charlotte, received the **Carol Bond Memorial Scholarship**, which was created by NC AWWA-WEA in cooperation with employees of the City of Raleigh to commemorate the late Carol Bond and her life-long devotion to environmental education. The scholarship supports Alma's upcoming graduate schoolwork in this area.
- CMUD Engineering Program Manager Keith Shirley was among four recipients of the 2013 **Golden Manhole Award**, which recognizes individuals who are significant contributors to the advancement of the systems design, education, training, certification, construction, operations, maintenance and management of water distribution systems or wastewater collection systems.
- CMUD received the state 2013 **Collection System of the Year Award** which recognizes municipalities that protect public health and the environment through "above and beyond" performance relative to management, operations and maintenance of their sanitary sewer collection systems beyond the basic requirements of their state-issued operating permits.



Shown: The collection system is maintained by the CMUD Field Operations staff.

- CMUD Chief Engineer Barry Shearin was named **Donald E. Francisco Educator of the Year** for outstanding service to the association and industry through education and training of water and wastewater professionals.
- Environmental Management's Billy Allen (Sugar Creek WWTP Supervisor) was inducted into the **Select Society of Sanitary Sludge Shovelers, ("5-S" for short)**. This is an honor bestowed upon individuals who have consistently contributed volunteer time and energy to support AWWA/WEA over a period of time. A very limited number of people are invited into this group each year.
- Julie McLelland, a Senior Engineering Project Manager, received the **Kenneth J. Miller Founder's Award**, which recognizes Julie's individual efforts in support of Water for People, which provides clean water systems to communities all over the world.

- Retired CMUD Assistant Director Jim Farrell received the **Gold Water Drop Award**, recognizing 50 years of service to AWWA programs and goals.
- **New technology from public-private partnerships is being developed to help with ongoing maintenance challenges.** Developed locally through a partnership between UNC-Charlotte and CMUD and marketed by a startup called InfoSense Inc., the SL-RAT, an acoustic approach to locating potential blockages, sometimes referred to as “sound to the ground”, won a 2012 WEF Innovative Technology Award and was named as one of the “10 Technologies That Could Change the Industry” at WEFTEC (Water Environment Federation Technical Exhibition and Conference).



Shown: The SL-RAT in use by the “sound to the ground” team.

- WAM Cityworks go-live for Field Operations, Locates Lift Stations, and field staffs, moved to paperless work order process, along with implementation of the Storeroom module. Over 95,000 service requests processes and 25,000 work orders have been initiated. Storeroom module has been used key in managing 1.9 million dollar inventory and in reducing system downtime during the annual audit from over 30 days to around 1 day. The project was a collaborative effort between CMUD, E&PM, and Shared Services Technology Management. The team was awarded the 2012 Exemplary CityWorks User Award at the CityWorks User conference. This national award is the only one awarded per year.
- CMUD began publishing and distributing a citizen’s ‘Guide to Understanding Rates & Your Bill’ in 2011. This customer communications effort continued in 2012 and 2013, with an expansion of the publication to focus on a guide to all billed city services. Additionally, a new CMUD customer e-newsletter is 2,200 subscribers strong, and growing. CMUD is committed to strengthening our community engagement strategy.
- Completion of project to replace the current Industrial Pretreatment application with Pretreatment Information Management system (PIMS).
- Completion of the Service Suite application expansion and laptop refresh project to support merged field workforce for CMUD Customer Service as scheduled by June 30, 2012.

LINKS TO CORPORATE STRATEGY

CMUD has reviewed and updated its Balanced Scorecard initiatives to maintain alignment with the goals of City Council and the mission and vision of our organization.

**Serve the
Customer**

The Customer Perspective

CMUD is committed to customer satisfaction and confidence by safeguarding the environment and providing responsive services, reasonable rates, system capacity, and effective communication.

**Run the
Business**

The Internal Process Perspective

CMUD continues to leverage technology and collaborate with other business units in efforts to optimize business processes with the ultimate goal of enhancing customer service.

**Manage
Resources**

The Financial Perspective

Sound financial management is a responsibility CMUD takes seriously, as we owe it to our ratepayers who support our operation. Effective management and a comprehensive Capital Investment Program contribute to our excellent bond ratings.

**Develop
Employees**

The Learning and Growth Perspective

Hiring and retaining competent staff is vital to our success. Employee training and development continues to be a high priority for CMUD.

STRATEGIC INITIATIVES

The table below identifies a few of the initiatives CMUD will undertake and how they align with the City's corporate objectives and/or focus areas. The CMUD FY2014 Balanced Scorecard can be found in Appendix of this report.

	<i>Department Initiative</i>	<i>Linkage to Corporate Strategy</i>
Serve the Customer	Environmental Stewardship: <ul style="list-style-type: none"> Reduce sanitary sewer overflows Meet or exceed all requirements of the Safe Drinking Water Act and Clean Water Act. Define and prioritize staff resources to optimize operations for reduction in overflows and leaks 	Corporate Objective: Safeguard the Environment Focus Area: Environment
Run the Business	Enhance Customer Service: <ul style="list-style-type: none"> Define and prioritize staff resources to maximize operations by completing customer service optimizations Develop and Implement a Comprehensive External Communication Plan. 	Corporate Objective: Enhance Customer Service
Manage Resources	Prepare for the Future: <ul style="list-style-type: none"> Incorporate continuous improvement and performance measures into business practices 	Corporate Objective: Invest in Infrastructure
Develop Employees	Provide Growth for the Future: <ul style="list-style-type: none"> Promote employee and leadership development by optimizing recruiting and retention methods and further streamlining the vacancy filling process. Promote employee and leadership development by the expansion of internal certification process. 	Corporate Objective: Promote Learning and Growth

Service Delivery

SERVICES

CMUD is organized around seven service areas. These areas and the services they provide are described briefly below.

Administration: Provides departmental level functions such as key business decisions, human resources, budget, financial management, rate setting, procurement, technology, communications, training, revenue recovery, safety, security, and competitiveness via continuous improvement.

Customer Service: Oversees new connections, service availability and customer account management including bill inquiries, meter reading, leak investigation, and backflow prevention.

Engineering: Provides design and construction of CMUD facilities, water and sewer main rehabilitation and extensions, donated projects, and surveying.

Environmental Management: Manages the treatment of wastewater before it is discharged back into the environment and protects our system by regulating industrial/commercial wastewater discharges, and oil and grease reduction.

Field Operations: Maintains more than 8,200 miles of water and sewer pipe and more than 260,000 service connections.

Laboratory Services: Provides testing of water, wastewater, and industrial users for compliance and manages water quality issues relating to taste, color, and odor.

Water Treatment: Provides treatment and pumping of water to distribute drinking water to customers.

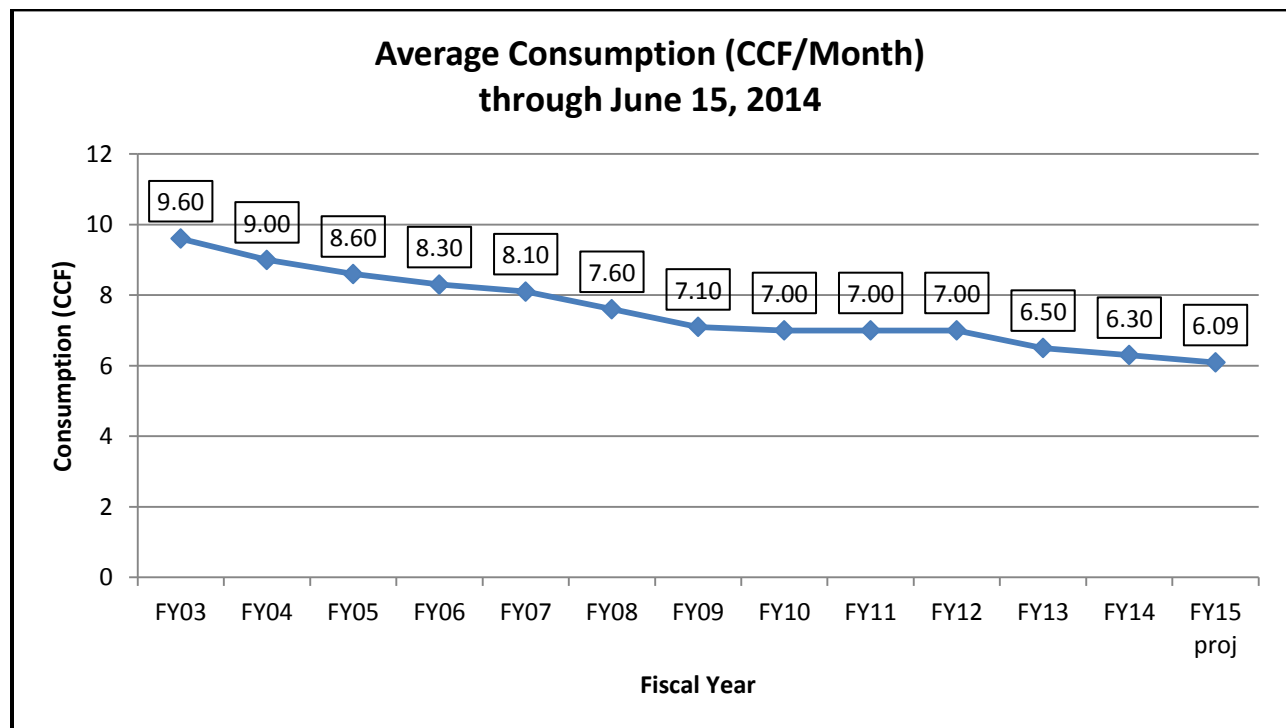


HISTORY and TRENDS

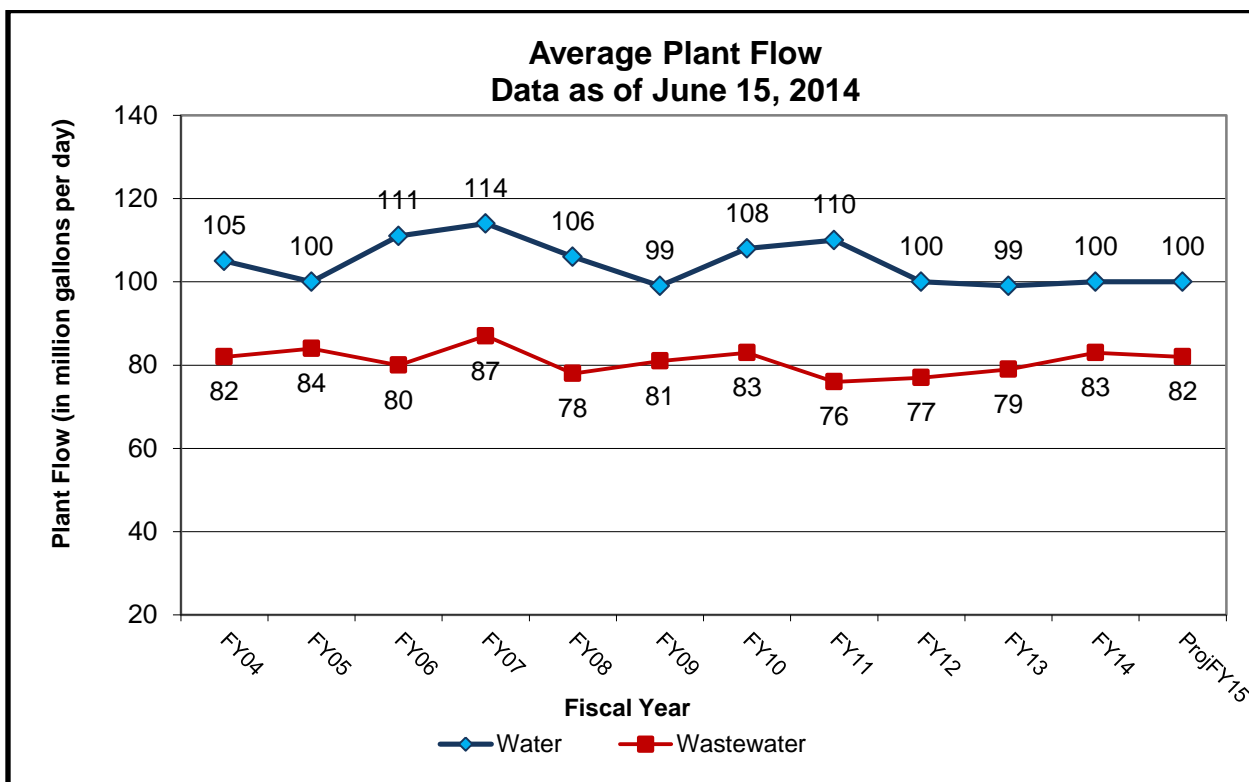
Our customer base and water and wastewater system continued to grow through 2014.

<i>As of June 2014</i>								
	2008	2009	2010	2011	2012	2013	2014	2015PROJ
Water Accounts	241,637	242,631	245,854	248,257	253,557	257,683	262,607	266,756
Wastewater Accounts	222,887	223,855	226,978	229,002	235,157	238,854	242,959	247,801
Water Mains (miles)	3,929	4,025	4,064	4,094	4,206	4,198	4,209	4,220
Wastewater Mains (miles)	3,942	4,028	4,047	4,073	4,180	4,170	4,189	4,190

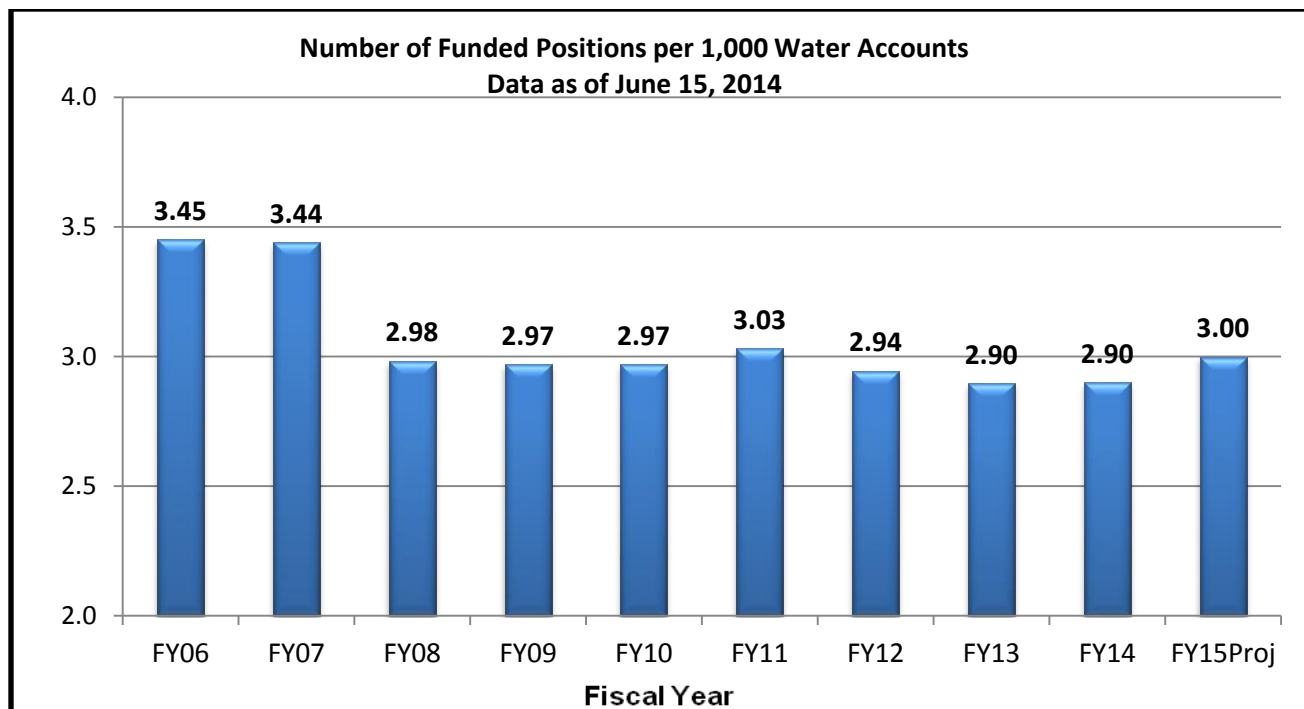
From FY2003 to FY2009, CMUD had seen a decrease in the average consumption per residential account for consecutive years. Following the drought restrictions during FY2008-09, when average consumption declined notably, residential customers have continued to use less water. Average consumption has been nearly flat since FY09 and has continued at approximately 7 CCF. Evidence indicates that customers have adopted and maintained conservation habits, such as low flow shower heads and low flow toilets.



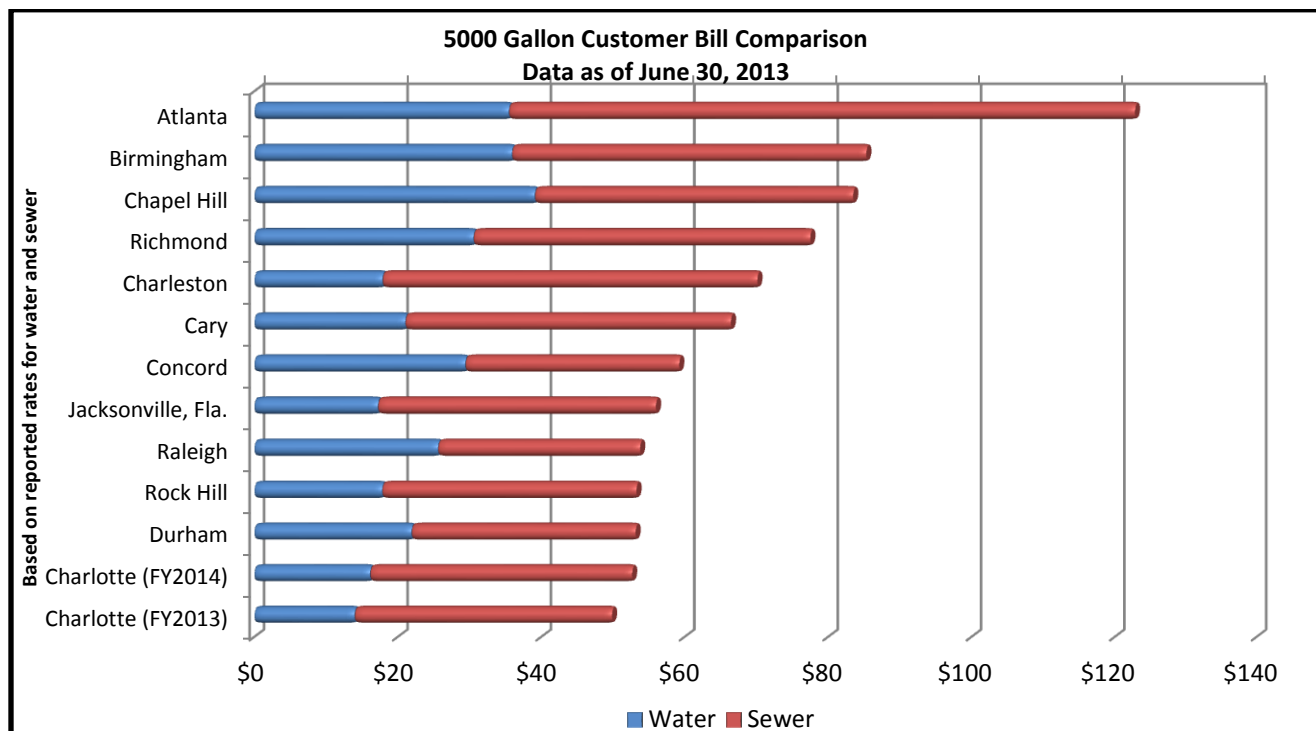
As can be seen in the Average Plant Flow graph below, during the first half of FY2011, with all restrictions lifted and only a mild persistent dryness, the water treatment plants saw a 14% increase in average daily pump rates while the wastewater treatment plants flow remained largely unchanged. By FY2012, average water treatment plant flows had decreased by about 10% as compared to the year prior, with wastewater treatment plant flows holding fairly steady. The gap between the water plant flows and the wastewater plant flows has been consistent and somewhat reflective of weather patterns. This gap is indicative of water being used but not returned to the system, e.g. lawn irrigation and the use of water for the testing and flushing of the distribution system. In FY2013, CMUD saw a slight decrease in water plant flow and a slight increase in wastewater plant flow which can both be attributed to wet weather conditions. Wet weather can lead to inflow into the wastewater treatment system and can cause the decreased consumption of water from the treatment plant, particularly consumption associated with irrigation.



Despite an increasing customer base, CMUD has successfully managed resources to minimize operating costs. Optimization, including continuous improvement, competition, and benchmarking help CMUD provide efficient, quality services while minimizing rate increases.



CMUD consistently ranks among the lowest rates for average residential customers in regional and national surveys. This is a result of efficient service delivery and capital financing strategies. The following graph shows 2013 data unless otherwise noted (2014 data is not yet available).



Resource Allocation Summary

	FY2010 Budget	FY2011 Budget	FY2012 Budget	FY2013 Budget	FY2014 Budget	FY2015 Budget
Budget	\$251,427,753	\$268,734,053	\$288,860,220	\$291,085,960	\$347,718,850	\$306,713,117
Authorized Positions	816.5	791.50	746.25	746.25	761.50	799.75
Water CIP	\$111,066,000	\$29,084,000	\$67,572,575	\$28,375,000	\$38,075,000	\$33,843,400
Wastewater CIP	\$275,470,000	\$83,262,600	\$50,327,000	\$52,983,400	\$68,280,400	\$73,045,400

*Includes service level changes for FY2015.

Conclusion

CMUD remains committed to the City's corporate strategy and to providing high-quality, low-cost services to our customers. One primary lesson learned in FY2011 and continued through forward was that CMUD understands the need to shift focus from a high growth oriented utility to a utility focused on sustaining and improving operations, maintenance, and customer service. This is due to the dramatic slowing of growth that has occurred over the recent years. Although CMUD saw some increase in growth rate beginning in the end of FY2013, this lesson learned will impact how we reposition to best respond to customer needs and maintain efficient operations in the future. This strategic operating plan promotes the achievement of organizational goals and objectives as well as continuing CMUD's commitment to providing vital basic services to our customers.

Appendix A: Department Link to Corporate Scorecard



Charlotte-Mecklenburg Utilities Strategy FY 2014 – FY2015

*City
Vision*

**Community of Choice for Living,
Working and Leisure**

*Strategic
Themes*

City Council Focus Areas



*Strategic
Principles*

Comprehensive Citizen Service

Utilities' Balanced Scorecard Objectives

Serve the
Customer

Safeguard
the
Environment

Run the
Business

Develop
Collaborative
solutions

Enhance
Customer
Service

Manage
Resources

Maintain
AAA Rating

Deliver
Competitive
Services



Invest in
Infrastructure





Develop
Employees

Achieve
Positive Employee
Climate

Promote
Learning &
Growth



Appendix B: FY2014 BALANCED SCORECARD – FINAL STATUS

FY2014 BSC							
City Strategy Vision Component	City Corporate Objective	Utilities Initiative (based on Effective Utility Management)	Measure:	Target:	Leadership Team Sponsors (or other significant responsible party)	Measurement Validation (Specific Actions to complete during the fiscal year)	FINAL FY14 ENTRY FOR CLARITY
Serve the Customer	Safeguard the Environment	COMMUNITY SUSTAINABILITY AND WATER RESOURCE ADEQUACY	Continue a leadership role in regional water resources planning and ensure long term availability of water supply	Ensure long term availability of water supply	Barry Gullet	Continue to work with Catawba-Wateree Water Management Group to complete Phase 2 of Basin-Wide SUPPLY Plan which is focused on Water Quality	The Catawba-Wateree Water Management Group-completed the Basin-wide Water Supply Plan. A presentation on the plan was made to City Council. TARGET MET. 
Serve the Customer	Safeguard the Environment	PRODUCT QUALITY	Meet all applicable requirements of the Safe Drinking Water Act and Clean Water Act.	Ensure public health, safety, and the environment	John Huber/Jackie Jarrell	Maintain 100% compliance for Safe Drinking Water Act AND National Pollutant Discharge Elimination System (NPDES) - Report quarterly to Ensure permit compliance, institute any needed corrective action, and identify preparations needed for future compliance requirements.	Water Treatment - 100% compliance with SDWA requirements and NPDES permits requirements. WASTEWATER - Cumulative through June FY14 project 99.91% compliance rate for the NPDES permit. 




Serve the Customer	Safeguard the Environment	PRODUCT QUALITY	Meet all applicable requirements of the Safe Drinking Water Act and Clean Water Act.	Ensure public health, safety, and the environment	Jackie Jarrell	Complete consultant master planning process by October 2013. Begin first five year phase of Biosolids master plan by June 2014.	The Biosolids Master planning Process has been completed. Step 1 is achieved with the final workshop on August 29. The final report was submitted to CMUD in September for review. Working on the renewal of the contract with Synagro for the next five years starting in July 2014. TARGET MET. 
Serve the Customer	Safeguard the Environment	OPERATIONAL OPTIMIZATION	Define and prioritize resources to optimize operations.	Ensure public health, safety, and the environment	Angela Lee/Barry Shearin	Reduce Sanitary Sewer Overflows to below 6.3 per 100 miles of pipe.	It's projected to achieve 5.8 SSOs/100 miles of pipe as of June 30, 2014. TARGET MET. 
Serve the Customer	Safeguard the Environment	OPERATIONAL OPTIMIZATION	Define and prioritize resources to optimize operations.	Conserve water and maintain system integrity	Angela Lee/Barry Shearin	Repair Water Leaks - Complete 100% of leak repairs in 8 calendar weeks	Field Operations successfully meeting target and the results is 100% of all leak repairs completed within 8 calendar weeks. TARGET MET. 
Serve the Customer	Safeguard the Environment	INFRASTRUCTURE STABILITY	Reduce Risk Management exposure	Achieve infrastructure stability through proper equipment selection based on life cycle cost and not solely up-front costs.	Jackie Jarrell/John Huber/Angela Lee/Regina Cousar	Identify quality critical process equipment in each operations division by JUNE 2014.	Team meeting was held on 6/16/14. Each group identified critical items during the separate vulnerability assessment and began mitigation planning. With consideration of that learning, for this target, the team met and chose 5 items to put into the FY15 Life Cycle Assessment pilot. TARGET MET. 




Serve the Customer	Safeguard the Environment	INFRASTRUCTURE STABILITY	Reduce Risk Management exposure	Achieve infrastructure stability through proper equipment selection based on life cycle cost and not solely up-front costs.	Angela Lee/Regina Cousar	Gather data on a sample of equipment in each class for hours not available. Begin to examine and track root causes for lack of availability. Prepare summary report on the sample equipment by June 2014.	Francesca, Roxie, and Charles submitted their report to Regina on 6/11/14. Recommendations from the analysis will now be reviewed for next steps. TARGET MET.
Run the Business	Optimize Business Processes	OPERATIONAL OPTIMIZATION	Define and prioritize resources to optimize operations.	Expand water loss recovery and revenue by characterizing non-revenue water.	Barry Shearin	1. Establish process and procedures for the development of a department-wide water audit platform. Complete first draft by January 2014. 2. Perform a baseline water audit that characterizes consumption and loss throughout the water system. Complete INITIAL AUDIT by June 30, 2014.	Water audit process built and implemented. Target achieved.

Run the Business	Enhance Customer Service	OPERATIONAL OPTIMIZATION	Define and prioritize resources to optimize operations.	Provide more effective data availability across CMUD divisions	Doug Groce	Institute standard data access Process across CMUD divisions and software platforms BY JUNE 2014. Milestones are Q1-development testing completed, Q2 determine appropriate versions and develop standard methods, Q3 implement, monitor and measure, and Q4 complete go live.	To complete the measure for this target standard data access approaches were defined and piloted. The final measure for this target was completed in In April of this year, when one of the piloted approaches was implemented on the CMUD intranet site to support and validate data entry into the forms for purchasing, accident assessments and safety inspections.
Run the Business	Enhance Customer Service	OPERATIONAL OPTIMIZATION	Define and prioritize resources to optimize operations.	Deliver innovative, cost effective and timely technology solutions for all divisions of CMUD	Doug Groce/Steve Miller	Complete Advantage AND Service Suite upgrade GO LIVE by March 2014.	With the early February 2014 go-live of the Version 4.3 of the Customer Suite (Advantage) application the target for this measure was successfully achieved. Finance coordinated the delivery of the project under the oversight of the Utility Management System (UMS) Executive and Management groups, with key representation from Finance, CMUD, Innovation and Technology, Storm Water, and 311.

Run the Business	Enhance Customer Service	OPERATIONAL OPTIMIZATION	Define and prioritize resources to optimize operations.	Achieve operational optimization by realigning billing cycle routes to balance workload and enhance customer service response.	Doug Groce/Steve Miller	(1) Complete BILLING CYCLE assessment by December 2013 (2) Deliver implementation approach by END OF March 2014.	The Assessment and Implementation Strategy documents were delivered as planned in December of 2013 and February of 2014 successfully meeting both measures for this target. After receiving input from the City Manager, the project team is working to refine and build consensus with key stakeholders on the proposed implementation strategy. 
Run the Business	Optimize Business Processes	OPERATIONAL RESILIENCY	Reduce Risk Management exposure	Achieve operational resiliency through enhancing the departmental safety and risk management profile	Regina Cousar	Identify a behavioral safety consultant by March 2014. Implement initial Behavioral Safety training for 10% of SUPERVISORS by JUNE 2014.	First training held in February 2014 by Quality Safety Edge. More supervisors were trained in March 2014. 125 members of staff were trained with over 110 being in current supervisory roles (85%). Any remaining supervisors will be trained by internal coaching leads. TARGET MET. 

Run the Business	Optimize Business Processes	CUSTOMER SATISFACTION	Manage Customer Relations & service access/delivery.	Provide more information to Internal Customers by use of dashboards, metrics, and internal teams.	Vic Simpson	Develop a team to identify a STRATEGY to increase MANAGEMENT AND STAFF communications. Team established by August 2013. Develop DRAFT STRATEGY by October 2013. Implement STRATEGY by December 2013. SUBMIT Follow up assessment by June 15, 2014.	CMUD Internal Communications Strategy Assessment done on 6/13/14 and submitted by memo to K. Eagle. TARGET MET.
Manage Resources	Maintain AAA Rating	FINANCIAL VIABILITY	Manage Customer Relations & service access/delivery.	Improve business and financial services	Kim Eagle/Chad Howell/Karen Whichard	Achieve financial metrics presented in the 10 YEAR Financial Model and report information to stakeholders.	As of April, CMUD maintains our triple AAA bond rating. Based on our FY 2013 Audited Financial Statements, our fund balance is 102% of our operating expenses for FY 2014. Our goal is 100%. We continue to monitor our revenues in light of our unusually wet summer. Our revenues have seen some recovery through March; however, should our revenues continue to fall under our estimates, we will begin looking for ways to offset our reduced revenues.

Manage Resources	Invest in Infrastructure	COMMUNITY SUSTAINABILITY	Engage in Citywide efforts for change management and continuous improvement.	Continue with the implementation of best practice standards	Myra Zabec	Complete NELAP accreditation for ONE NEW laboratory section by end JUNE 2014.	Audit occurred. Results not anticipated until August 2014.	
Manage Resources	Invest in Infrastructure	COMMUNITY SUSTAINABILITY	Engage in Citywide efforts for change management and continuous improvement.	Continue with the implementation of best practice standards	Angela Lee	Achieve submission of Phase III for the Distribution System Partnership for Safe Water report by June 15, 2014.	Report submitted. Target achieved.	
Manage Resources	Promote Learning and Growth	OPERATIONAL OPTIMIZATION	Engage in Citywide efforts for change management and continuous improvement.	Improve organizational performance by use of KPIs, change management, and Continuous Improvement.	Regina Cousar	Conduct best practice internal lunch and learns -go from quarterly webinars or internal seminars to 6 internal seminars or webinars annually. Conduct at least 2 internal audits for continuous improvement assessments.	2 audits of CSD - ISO 9000 and 1 audit of FO - ISO 55000 initiation completed. 6 webinars conducted.	

Develop Employees	Achieve Positive Employee Climate	EMPLOYEE & LEADERSHIP DEVELOPMENT	Encourage Wellness.	Encourage Wellness: Of employees that enroll, take actions to ensure that at least 70% elect the wellness medical plan	Wellness Team/Carolyn Ross	Conduct at least 2 Wellness Sessions encouraging participation prior to open enrollment. Provide at least 6 monthly reminders on Wellness during FY 2014.	At least 3 Wellness Sessions at CMUD locations encouraging participation were held prior to open enrollment. 12 reminders on Wellness were issued during FY 2014.	
Develop Employees	Promote Learning and Growth	EMPLOYEE & LEADERSHIP DEVELOPMENT	Promote employee and leadership development.	Maintain strength of workforce by implementing better procedures and standards to retain and recruit employees	Bab Westall	Leadership Team to agree on a target for vacancies by September 2013. HR to monitor and report on status of vacancies with respect to target each month. HR to prioritize work for the Vacancy Strategy Teams and implement 2 Core Recommendations from the teams; first one by March 2014 and second by the end of June 2014.	78 % of interview panels were scheduled while the job was being advertised for October, 2013 through June, 2014. Two recommendations of the Vacancy Strategy Teams were implemented: 1) A Recruitment Brochure was developed and seven career fairs/recruiting events were attended in FY14. 2)The CMUD MyCareers Portal was created and is under construction. It currently includes illustrations of potential career paths and job descriptions with educational requirements for jobs within Utilities.	
Develop Employees	Promote Learning and Growth	EMPLOYEE & LEADERSHIP DEVELOPMENT	Promote employee and leadership development.	Maintain strength of workforce by implementing better procedures and standards to retain and recruit employees	Bab Westall	Offer at least 3 internal conferences that meet employee learning needs and provide CEU's and PDH's annually.	Three internal conferences were held in FY14; each offered 6 CEU's and 6 PDH's. 117 employees from six different work areas attended the conferences.	

Develop Employees	Promote Learning and Growth	EMPLOYEE & LEADERSHIP DEVELOPMENT	Promote employee and leadership development.	Maintain strength of workforce by implementing better procedures and standards to retain and recruit employees	Bab Westall	Work collaboratively with other City of Charlotte departments to propose improvements to the Pay Plan by June 2014 focusing on Labor and Trades positions.	CMUD worked collaboratively with other City departments; however, recommendations for pay plan changes were deferred until FY16.
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